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D. W. Cook  
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# CALIFORNIA STATE POLYTECHNIC COLLEGE BULLETIN

(CIRCULAR OF INFORMATION)  
1949-1950



SAN LUIS OBISPO AND SAN DIMAS  
CALIFORNIA

# CALIFORNIA STATE POLYTECHNIC COLLEGE BULLETIN

SAN LUIS OBISPO

and the

VOORHIS UNIT  
SAN DIMAS, CALIFORNIA

CIRCULAR OF INFORMATION  
1949-1950

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SERIES 29, No. 3

SEPTEMBER, 1949

PUBLISHED QUARTERLY

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Published by California State Polytechnic College at San Luis Obispo, California

Entered as second-class matter, August 9, 1918, at the post office of San Luis Obispo, California  
under the Act of August 24, 1912

## FOREWORD

California State Polytechnic College is dedicated to the principle that students need to know the technical and manual processes in agriculture, engineering, and other occupational fields, as well as the theories which govern these processes, and further, that students who intend to become teachers in these and related subjects should master practical techniques in addition to teaching methods.

This phase of occupational training complements the older, more orthodox concept of higher education as a process of developing the mind toward creative thinking. To the theory that higher education should confine itself to broad, cultural training leading to professional careers, the California State Polytechnic College has added a new concept—that of providing occupational training on a college level leading to technical or vocational as well as professional careers.

In many states, this need for a dual concept of higher public education is recognized in the organization of the collegiate system. A university dedicated to the fine arts and sciences is paralleled by a college of agriculture and mechanic arts, each providing a necessary function in the training of the young people of the State.

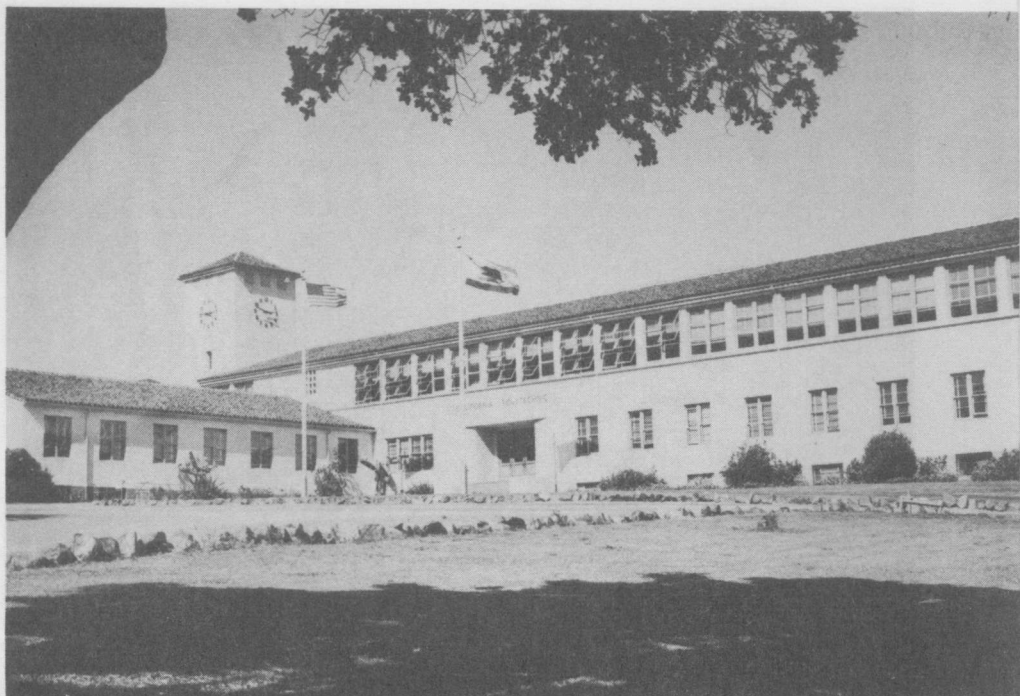
When the California State Polytechnic College was established in 1901, the founders had in mind such a service. The legislative act which created the school included the statement that "the purpose of the school is to furnish to young people of both sexes mental and manual training in the arts and sciences, including agriculture, mechanics, engineering, business methods, domestic economy, and such other branches as will fit the students for the nonprofessional walks of life." It further stated that "this article shall be liberally construed, to the end that the school may at all times contribute to the industrial welfare of the State."

In carrying out the responsibility of providing California young people with an agriculture and mechanic arts type of education on a college level, California State Polytechnic College differs in three major respects from the typical "A & M" college:

1. California Polytechnic places major emphasis on instruction rather than on research.
2. It uses an unique project system of instruction which incorporates the philosophies of "learning by doing" and "earning while learning."
3. It uses an "upside down" educational plan, which is characterized by the grouping of as many technical and job-getting courses in the first two years as possible. The total course content of any of the four-year curricula is substantially the same as in a similar major in a typical "A & M" college—but is offered in an inverted order.

# CALIFORNIA STATE POLYTECHNIC COLLEGE

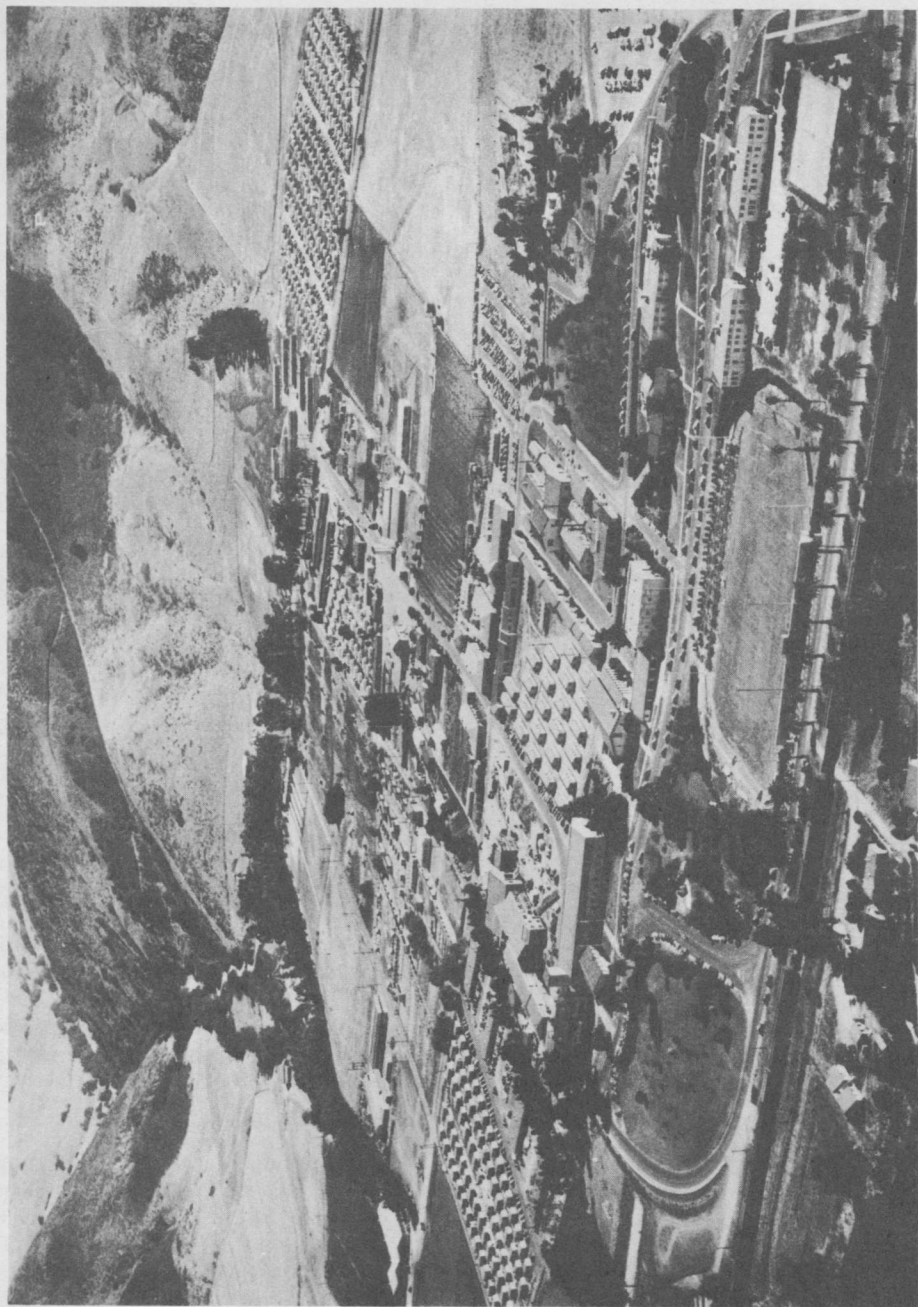
## SAN LUIS OBISPO AND SAN DIMAS, CALIFORNIA



**Above:** The administration - classroom building is situated on a knoll near the center of the 2,233-acre campus and farm at San Luis Obispo, which is just halfway between Los Angeles and San Francisco. The main line of the Southern Pacific Railroad and Roosevelt Highway both bisect the campus, while Highway 101 is less than one mile from the college property.

**Left:** The beautiful nonsectarian chapel on the Voorhis campus, San Dimas, overlooks the vast citrus empire at the base of snow-capped Mt. Baldy. The Voorhis Unit of California State Polytechnic College is located in the heart of the citrus, truck crops, and commercial ornamental horticultural production areas of Southern California.



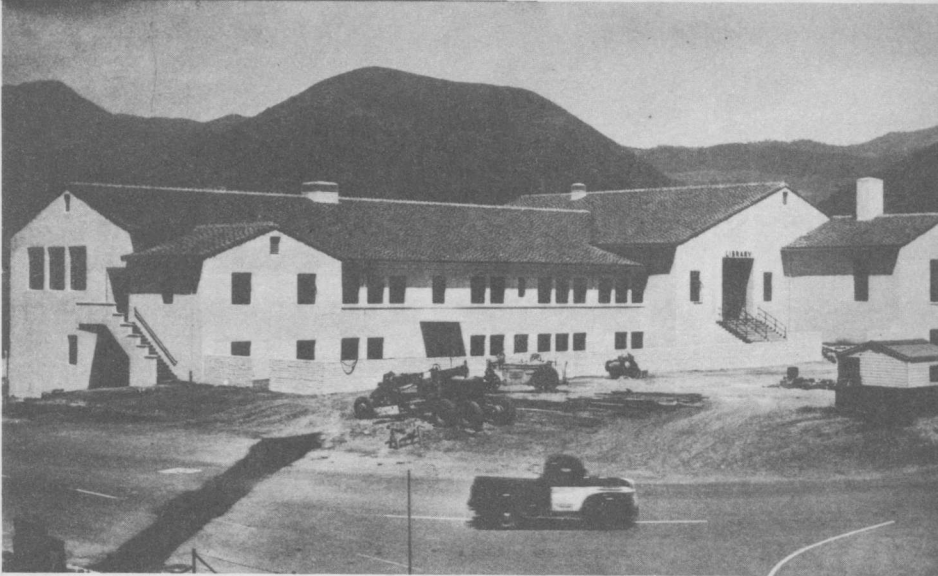


Campus and Farm, California State Polytechnic College, San Luis Obispo, California

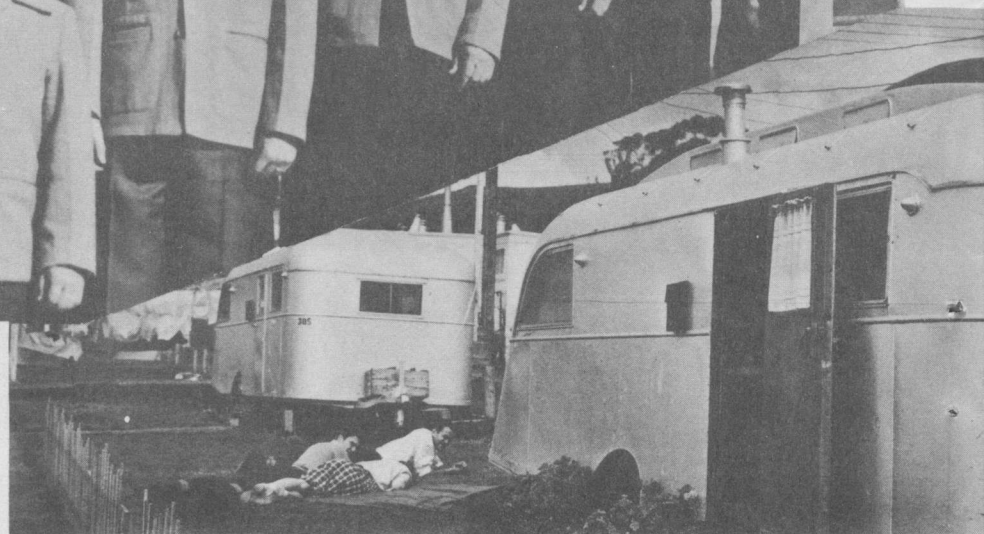
## GENERAL INFORMATION



*Left:* President Julian A. McPhee is now able to devote full time to the job of directing the program of the expanding college after resigning from the position of State Director of Vocational Education in January, 1949.

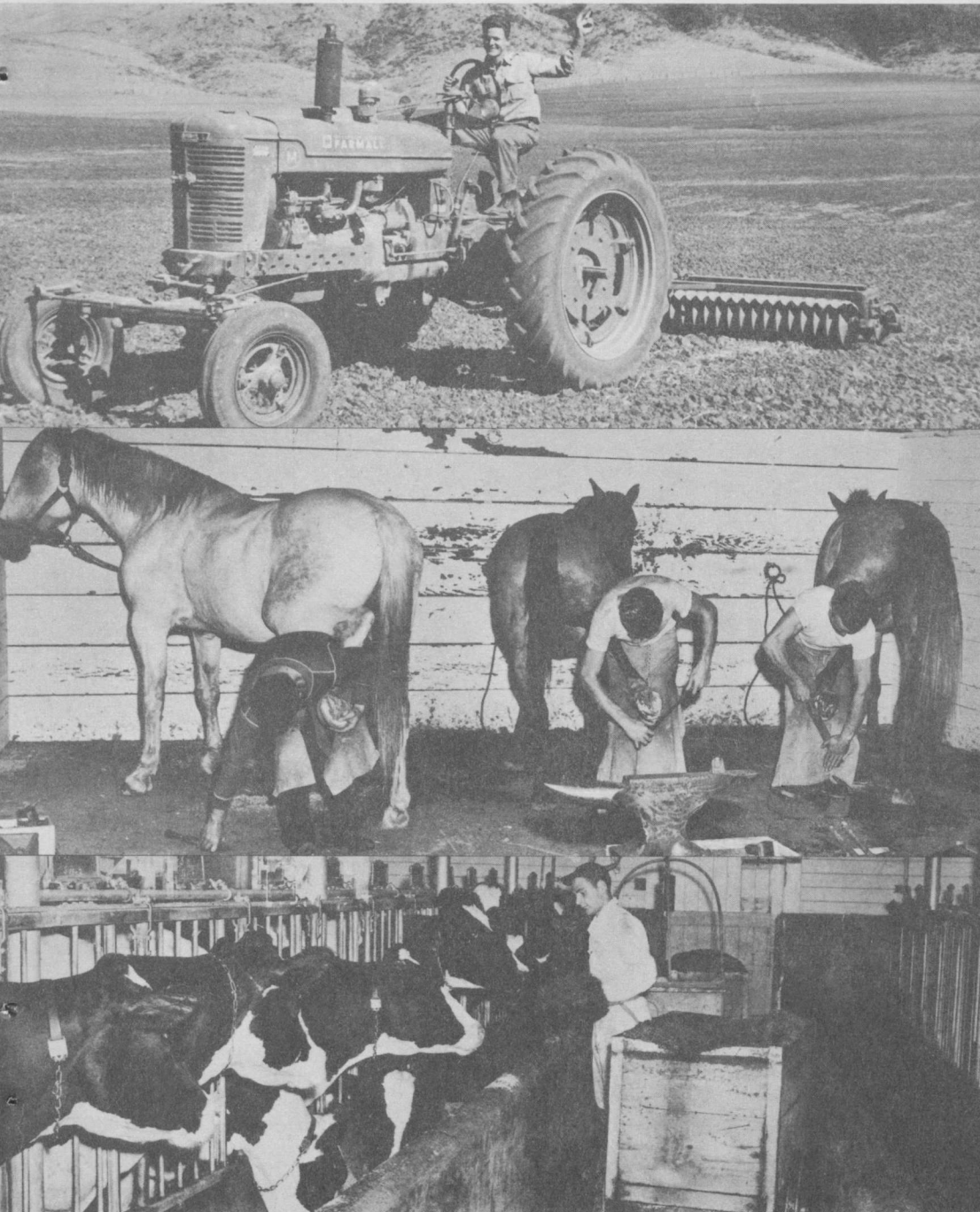


*Above:* The Walter Friar Dexter Memorial Library Building is being completed for its opening in September, 1949. The \$700,000 building has two large reading rooms, stack room space for 120,000 books, and several special features.



**Top:** Students show lambs in the livestock show in the biggest event of the entire school year—the annual Poly Royal celebration which attracts thousands to the campus each spring. **Center:** The Majors and Minors is one of the college's musical groups which performs on an annual spring tour in various sections of the State. **Bottom:** Comfortable and well-equipped trailers provide housing for married veterans on the campus.

## AGRICULTURAL DIVISION



**Top:** Students learn how to operate all types of equipment used on the farm. **Center:** The vanishing craft of horseshoeing is being revived at Cal Poly where students may take a 12-week course in shoeing. **Bottom:** This student helps feed, milk and care for the high-test dairy herds in the dairy husbandry department.





**Left:** Greenhouses and lath houses allow students in ornamental horticulture plenty of opportunity to grow a wide variety of shrubs and plants.

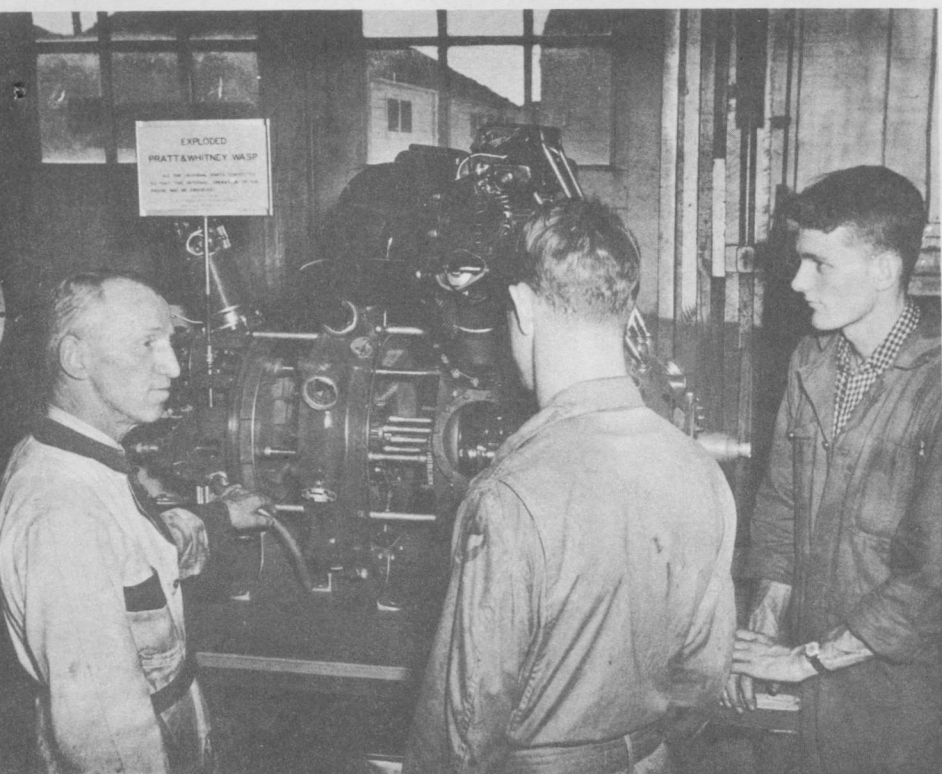
**Right:** Students in the Poultry Husbandry Department learn how to operate a poultry farm by actually raising chickens for egg laying and eating and by working in the college poultry department grading and sorting eggs.



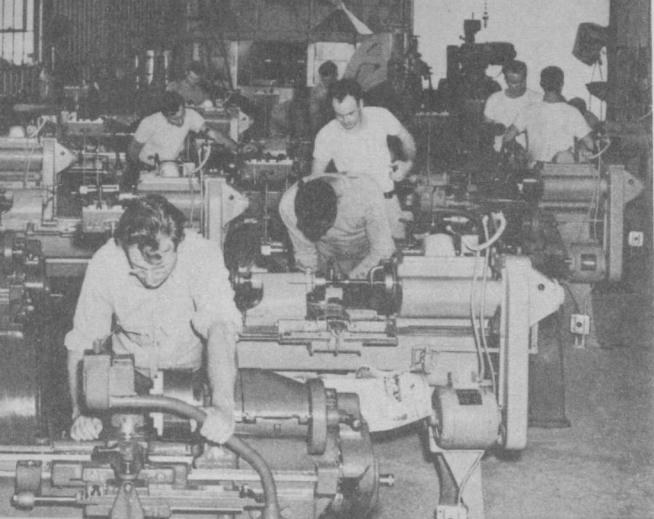
**Left:** Animal husbandry students examine a newborn colt in the college thoroughbred horse breeding unit.



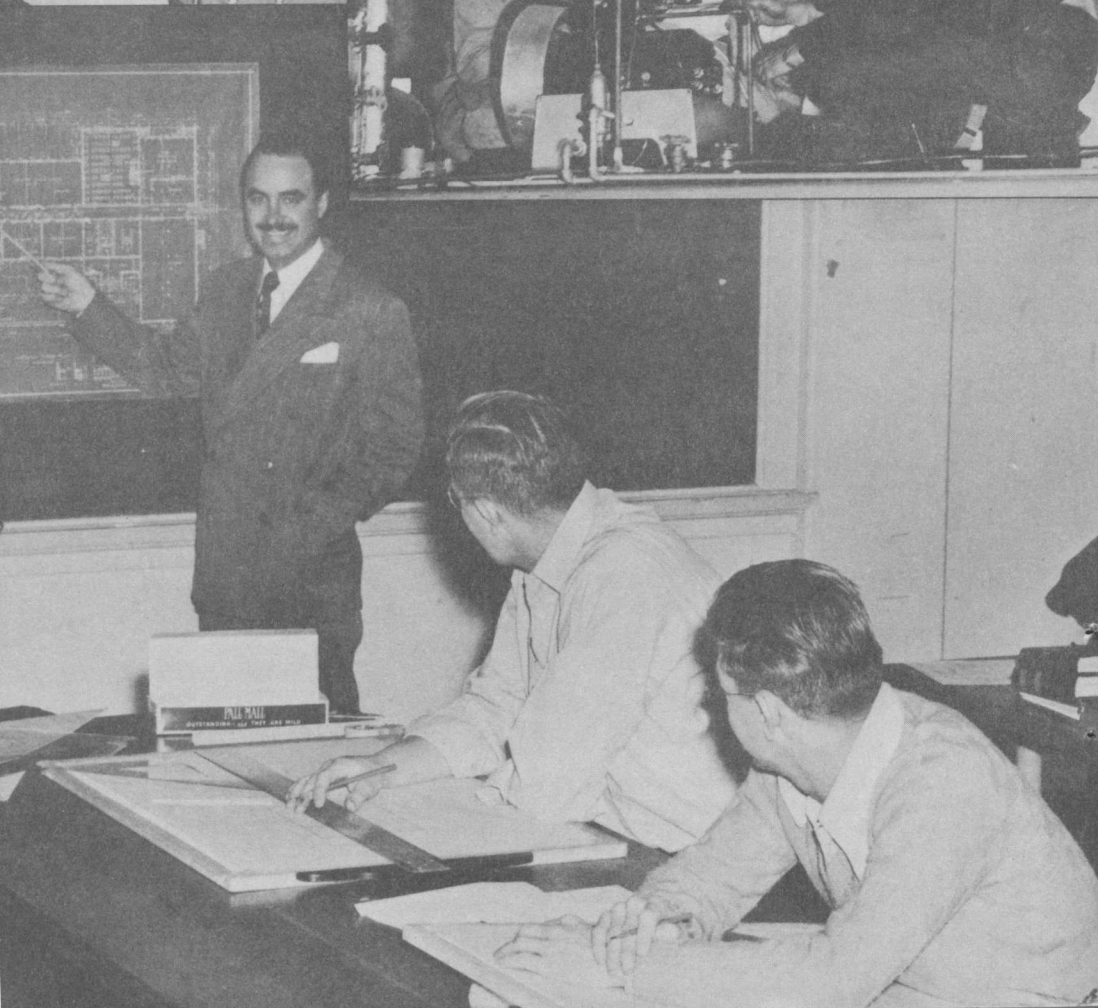
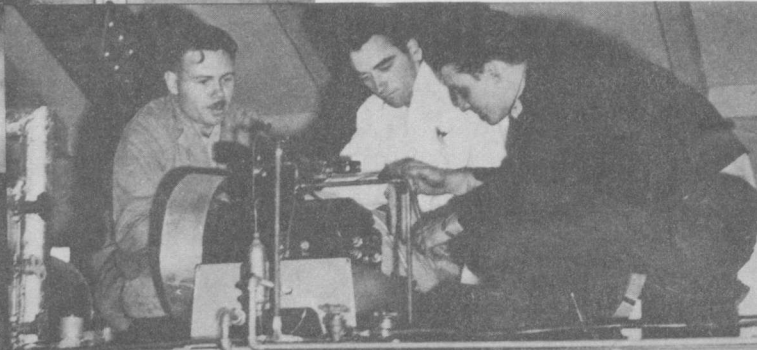
## ENGINEERING DIVISION



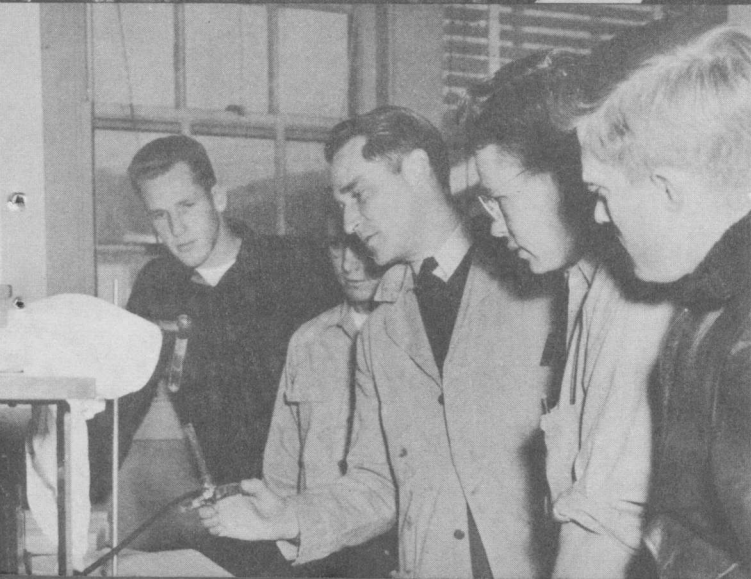
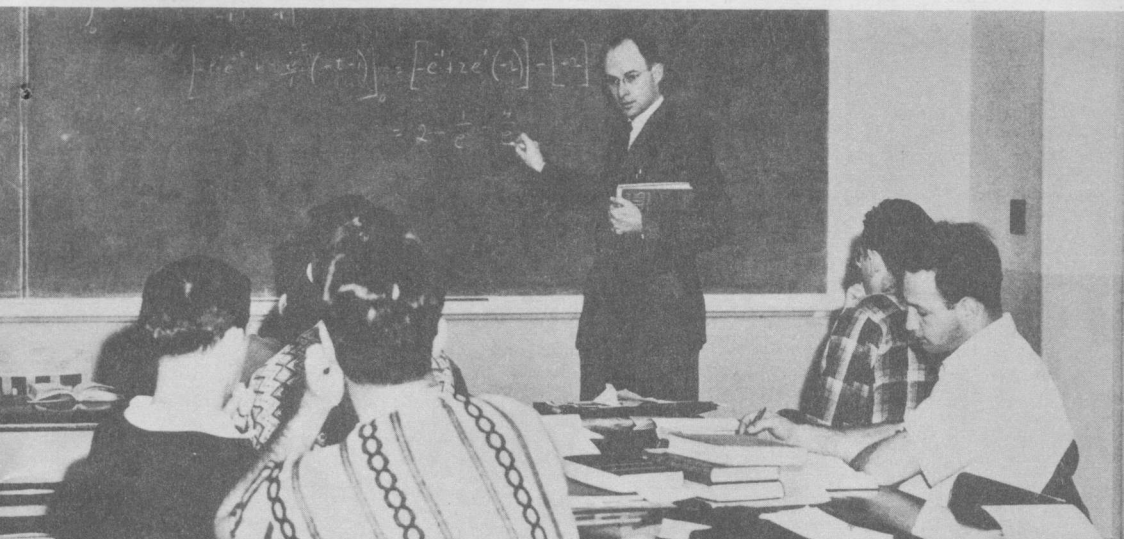
**Top:** Students in aeronautical engineering study all types of airplane engines, from early models to the latest jets. In addition to the large shops for construction and engine overhaul, there is a hangar on the college's flying strip. **Bottom:** Cal Poly's "School for Country Printers" trains men to enter the printing industry from this fully-equipped shop where they learn to operate all the machines of the trade.



**Bottom:** An instructor in architectural engineering goes over a blueprint with students. **Center:** Air conditioning students inspect Freon equipment for a quick freeze box. **Left:** Students in the variety of engineering courses at the college receive instruction in the modern, well-lighted machine shop.



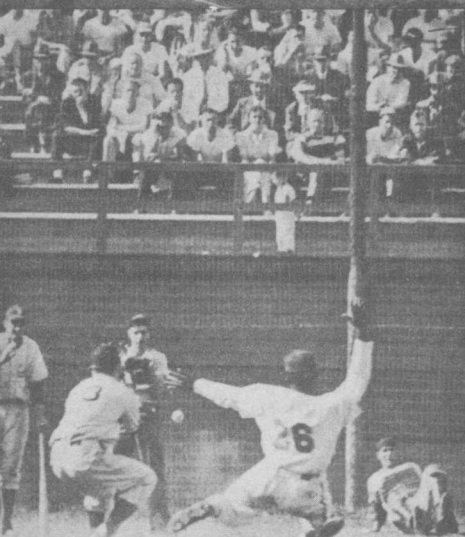
## SCIENCE AND HUMANITIES DIVISION



*Top:* Majors in mathematics learn the applications of a new formula.

*Center:* Social science majors discuss a political concept with an instructor.

*Bottom:* Students in the physical sciences watch an experiment conducted in one of the college chemistry laboratories.



**Top:** The college athletic plant includes a football stadium, recently enlarged with new steel bleachers seen at the right. The gymnasium, also just enlarged, and the natatorium are seen in the background on the right.

**Right center:** The college is a member of the California Collegiate Athletic Association and competes in all major sports with such schools as San Jose State, San Diego State, Santa Barbara College, Fresno State, and Pepperdine College.

**Left center:** A player slides into home on the college's new baseball diamond, part of a new \$60,000 athletic field which includes a track, practice football field and field house.





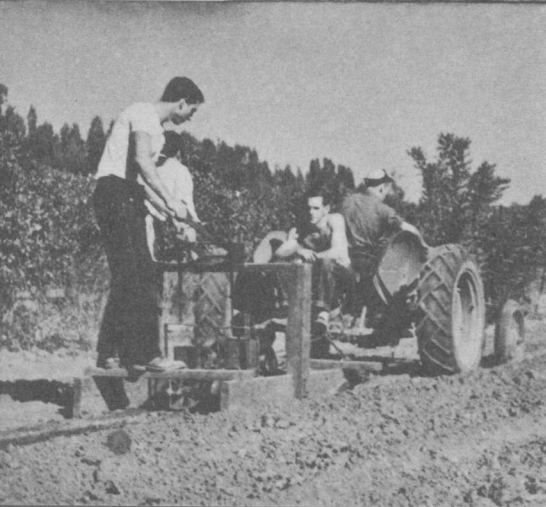
# VOORHIS UNIT CALIFORNIA STATE POLYTECHNIC COLLEGE



**Top:** View of the Administration Building, Library and "H" Building from the chapel tower on the Voorhis campus, San Dimas, Calif.

**Bottom:** All classroom, dormitory, laboratory and administrative buildings on the San Dimas campus follow the same architectural pattern as that of this Spanish-style dormitory building which blends perfectly with the park-like setting of the campus.





Top: Citrus fruit production students cultivate college citrus groves.  
 Center: Greenhouses at the Voorhis Unit provide room for student projects and laboratories.  
 Left: Field and truck crops students seed fields on the campus.

# CALIFORNIA STATE POLYTECHNIC COLLEGE

## CALENDAR, 1949-50

### Summer Quarter

June 9	Thursday. Registration and Examination for New Students (continuing through June 10)
June 11	Saturday (a.m.). Registration and Scheduling for Old * and New † Students
June 13	Monday. Classes Begin for All Students
June 18	Saturday (noon). Last Day for Returning Registration Cards
June 21	Tuesday. Last Day on Which Classes May Be Added or Dropped Without Penalty
July 4	Monday. Holiday
July 21-22	Thursday, Friday. Final Examinations for Six-week Quarter
July 23	Saturday. Registration and Scheduling for All Students
July 25	Monday. Classes Begin for All Students
July 30	Saturday (noon). Last Day for Returning Registration Cards
August 2	Tuesday. Last Day on Which Classes May Be Added or Dropped Without Penalty
September 1-2	Thursday, Friday. Final Examinations for Six-week Quarter

### Fall Quarter

September 1	Thursday. Beginning of Regular Academic Year
September 6	Tuesday. Registration and Examination for New Students (continuing through September 7)
September 8	Thursday. Registration and Scheduling for Old ‡ Students
September 9	Friday. Admission Day Holiday
September 10	Saturday. Scheduling for New Students
September 12	Monday. Classes Begin for All Students
September 16	Saturday (noon). Last Day for Returning Registration Cards
September 30	Friday. Last Day on Which Classes May Be Added or Dropped Without Penalty
October 13-14-15	Thursday, Friday, Saturday. Mid-term Examinations
November 11	Friday. Armistice Day Holiday
November 21-22-23	Monday, Tuesday, Wednesday. Final Examinations
November 23	Wednesday. End of Fall Quarter

\* Old students are those students who were in attendance the quarter immediately preceding the registration date.

† New students are those students who are enrolling for the first time or who are enrolling after an absence of one or more quarters.

‡ Old students for the fall quarter will be students who were registered during the summer and/or the spring quarter.

### **Winter Quarter**

November 30	Wednesday. Registration and Examination for New Students (continuing through December 1)
December 2	Friday. Registration and Scheduling for Old Students
December 3	Saturday. Scheduling for New Students
December 5	Monday. Classes Begin for All Students
December 10	Saturday (noon). Last Day for Returning Registration Cards
December-22-	
January 2	Christmas Holiday
January 3	Tuesday. Classes Resumed for All Students
January 4	Wednesday. Last Day on Which Classes May Be Added or Dropped Without Penalty
January 19-20-21	Thursday, Friday, Saturday. Mid-term Examinations
March 2-3-4	Thursday, Friday, Saturday. Final Examinations
March 4	Saturday. End of Winter Quarter

### **Spring Quarter**

March 8-9	Wednesday, Thursday. Registration and Examination for New Students
March 10	Friday. Registration and Scheduling for Old Students
March 11	Saturday. Scheduling for New Students
March 13	Monday. Classes Begin for All Students
March 18	Saturday (noon). Last Day for Returning Registration Cards
March 31	Friday. Last Day Classes May Be Added or Dropped Without Penalty
April 7-8-9	Friday, Saturday, Sunday. Easter Holiday
April 20-21-22	Thursday, Friday, Saturday. Mid-term Examinations
April 24	Monday. Last Day for Filing Applications for June Commencement
April 24	Monday. Last Day for Filing Approved Theses With the Registrar
May 30	Tuesday. Memorial Day Holiday
May 31-June 2	Wednesday, Thursday, Friday. Final Examinations
June 2	Friday. End of Spring Quarter, Commencement
June 6	Tuesday. End of Regular Academic Year

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## CALIFORNIA STATE POLYTECHNIC COLLEGE

Administered by

### THE STATE BOARD OF EDUCATION

WILLIAM L. BLAIR (President)	Pasadena
BYRON H. ATKINSON	Glendale
RAYMOND J. ARATA	San Francisco
C. J. HAGGERTY	San Francisco
MRS. E. T. HALE	San Diego
GILBERT T. JERTBERG	Fresno
JOSEPH P. LOEB	Los Angeles
MRS. VIVIAN N. PARKS	Richmond
FRED W. SMITH	Ventura
MRS. E. K. STRONG	Stanford University

### THE STATE DEPARTMENT OF EDUCATION

HON. ROY E. SIMPSON	Director of Education, Sacramento
DR. AUBREY A. DOUGLASS	Associate Superintendent of Public Instruction
DR. JOEL A. BURKMAN	Assistant Director of Education
JULIAN A. MCPHEE	President, California State Polytechnic College, San Luis Obispo and San Dimas
WESLEY P. SMITH	State Director of Vocational Education

### THE CALIFORNIA STATE POLYTECHNIC COLLEGE

JULIAN A. MCPHEE	President
C. O. McCORKLE	Dean of Instruction
HAROLD O. WILSON	Dean of Voorhis Unit
VERNON H. MEACHAM	Dean of Student Welfare
DONALD S. NELSON	Business Manager
VARD SHEPARD	Assistant Dean in Charge of Agriculture Division
C. E. KNOTT	Assistant Dean in Charge of Engineering and Industrial Division
HUBERT H. SEMANS	Assistant Dean in Charge of Science and Humanities Division
C. PAUL WINNER	Assistant Dean in Charge of Admissions and Guidance
J. CORDNER GIBSON	Assistant Dean, Voorhis Unit
LEO F. PHILBIN	Registrar
LEONA M. BOERMAN	Secretary to the President



## HISTORY

When California State Polytechnic was established in 1901 by the Legislature of the State of California, no level of instruction was proposed in the act which created the school. It opened as a state vocational high school and was the forerunner in California of vocational education along agricultural and industrial lines. When the idea of vocational education spread to the district high schools and ultimately became a part of the basic federal and state programs of education, California State Polytechnic continued in its role as a pioneer of vocational education. When the district high schools began providing adequate vocational instruction on a high school level, California State Polytechnic raised its level of instruction in 1927 to that of a junior college.

In 1933, when the school was made a direct administrative branch of the State Department of Education and at the same time was placed under the guidance of the Chief of the Bureau of Agricultural Education, it was changed from a junior college to a two-year and three-year technical college. The Chief of the Bureau of Agricultural Education retained the dual office from 1933 until 1945, at which time he became State Director of Vocational Education, but retained the presidency of the college. He resigned from the position of Director of Vocational Education to devote full time to the duties of the president of the college January 1, 1949.

In 1936 a degree-transfer program was added, and in 1940 the State Board of Education authorized the college to grant the Bachelor of Science degree for completion of the four-year curriculum. The first baccalaureate exercises were held in 1942.

For a period of 15 years California State Polytechnic gave skills and methods courses for agriculture teacher candidates in cooperation with the University of California, which accepted this credit toward meeting requirements of special teaching credentials in vocational agriculture. When Senate Bill No. 788 was passed in 1946 allowing state colleges to give a fifth year of instruction, the California State Polytechnic expanded its services and was accredited by the State Board of Education to recommend students directly for the special secondary credential in vocational agriculture and the special secondary limited credential in agriculture. Early in 1947 the State Board of Education granted the college the privilege of giving the training for prospective physical education teachers and recommending graduates for the special secondary credential in physical education.

In April, 1948, the California State Board of Education approved the college to recommend graduates for the general secondary teaching credential in any of the following majors: social studies, mathematics, physical science and general science, life science and general science, agriculture, and physical education.

In 1938, a completely equipped school and farm near San Dimas, in Los Angeles County, admirably situated and adaptable for technical instruction in citriculture, deciduous fruit production, agricultural inspection, and landscape gardening, was deeded to California Polytechnic by its owners, Charles B. Voorhis of Pasadena, and his son, former Congressman Jerry Voorhis. This magnificent gift was immediately put to use as a plant industries branch of the college. Although it was necessary to close the Voorhis Unit during the war period, 1942-45, it was reopened in the fall of 1945.

Because the college was equipped with the facilities and the educational pattern capable of training skilled workmen quickly, the Federal Government called upon California Polytechnic College in 1940 to take over a share of the national defense, and later war production, training courses. National defense training classes began at California Polytechnic on September 3, 1940, at the very inception of this program in the United States. Some of the subjects were offered 24 hours a day, seven days per week.

From January, 1943, to November, 1944, more than 3,600 naval aviation cadets were trained at the California Polytechnic Naval Flight Preparatory School. Another 1,100 trainees received instruction in a Naval Academic Refresher Unit operated from July, 1944, until February, 1946.

Despite the fact that the naval aviation training activities of the college during the three-year period were conducted on an "all-out" basis, all regular activities of the college were maintained with no cessation of educational service. The faculty was

retained with little change, with most faculty members instructing both civilian and naval students.

Another wartime activity of California Polytechnic which was concluded during the calendar year of 1946 was that of the Food Production War Training program. This program closed officially on June 30, 1946, after three years of service in training more than 123,000 California farmers and members of farm families. California Polytechnic served as state headquarters, and the president of the college was state director of this program.

Considerable growth in land and facilities of the college has been necessary to keep stride with the demand on the part of students for wider offerings in agriculture, engineering, and related fields. Descriptions of the college's lands, buildings, and other facilities will be found in the section on General Information.

The college now offers the Bachelor of Science degree for completion of the four-year curriculum in the following majors :

**Agriculture**—Agricultural Engineering and Mechanics, Agricultural Inspection, Animal Husbandry, Field Crops, Truck Crops, Deciduous Fruit Production, Citrus Fruit Production, Dairy Husbandry, Dairy Manufacturing, Ornamental Horticulture, Poultry Husbandry, General Crops Production, Soils Science.

**Engineering**—Aeronautical Engineering, Air Conditioning and Refrigeration Engineering, Architectural Engineering, Electrical Engineering, Electronic and Radio Engineering, Mechanical Engineering, Maintenance Engineering, Printing.

**Science and Humanities**—Social Science, Mathematics, Biological Science, Physical Science, Physical Education.

The college also offers two-year vocational and three-year technical curricula in all agricultural majors. Two-year and three-year technical curricula are offered in engineering majors.

Upon completion of the two-year curricula in the Engineering and Agricultural Divisions, students are awarded vocational certificates. Upon completion of the three-year technical curricula, students are awarded technical certificates.

## FACULTY COMMITTEES

### SAN LUIS OBISPO

The following faculty committees will serve at the San Luis Obispo campus during the school year 1949-50.

**Instructional Council**—Mr. McCorkle, Chairman; Mr. Cook, Secretary; Mr. Knott, Mr. Meacham, Dr. Semans, Mr. Vard Shepard, Mr. Wilson,\* Mr. Winner.

**Alumni Activities**—Mr. Beck, Chairman; Mr. Benton Caldwell, Mr. Davidson, Mr. House, Mr. J. Jones, Mr. Jorgensen, Mr. Kennedy, Mr. McGrath, Mr. Metz.

**Campus Development**—Mr. Cook, Chairman; Mr. Lonborg, Mr. Howes, Mr. Priestley, Mr. Troutner, Dr. Whitson.

**Catalog**—Mr. Kennedy, Chairman; Mr. Cook, Mr. Leary, Miss Marston, Mr. Riebel.

**Class Advisers and Graduation**—Mr. Rickansrud, Chairman; Mr. Collins, Senior Class; Mr. Lonborg, Junior Class; Mr. Ellis, Sophomore Class; Mr. Milham, Freshman Class.

**Farm Advisory**—Mr. Vard Shepard, Chairman; Mr. Beck, Mr. Bennion, Mr. Erle Campbell, Dr. Carter, Mr. Dougherty, Mr. Drumm, Mr. Howes, Mr. Leach, Mr. Merson, Mr. Nelson, Mr. J. I. Thompson.†

**Gift, Trusts, and Scholarships**—Mr. Meacham, Chairman; Mr. Glikbarg, Mr. Stanton Gray, Mr. Gustafson, Mr. J. Jones, Mr. Lucksinger, Mr. Nelson, Mr. Radius, Mr. J. I. Thompson, Mr. Wilson.\*

**Host**—Mr. Beck, Chairman; Mr. Bloom, Mr. Bromley, Mr. Deuel, Mr. Gertz, Mr. Hardgrove, Mr. Milham, Mr. Noggle, Mr. Philbin, Mr. Remund, Mr. Steuck, Mr. Stevenson.

**Library**—Mr. McGrath, Chairman; Mr. Bromley, Dr. Stanley Clarke, Dr. Douglas, Mr. Dougherty, Mr. Garter, Mr. Highum, Mr. Johnston, Mr. McNeely, Mr. Maurer, Dr. Pendleton, Mr. Sankoff, Mr. J. Smith, Mr. Whiting, Mr. Wiley.

**Placement**—Mr. J. Jones, Chairman; Mr. Knott, Mr. McCorkle, Dr. Semans, Mr. Vard Shepard, Mr. Winner, Mr. Wilson.\*

**Public Relations**—Mr. Cruikshanks, Chairman; Mr. Beck, Mr. Bennion, Mr. Couper, Dr. Carter, Mr. Davidson, Mr. Fellows, Mr. J. Jones, Mr. Kennedy, Mr. McCorkle, Mr. Radius, Mr. Dave Thomson, Mr. Wiley, Mr. Wilson.\*

**Registration**—Mr. Winner, Chairman; Mr. C. Jones, Mr. J. Jones, Mr. Lucksinger, Mr. Meacham, Mr. Philbin, Mr. Nereson, Mr. Starkey, Mr. Steiner, Mr. Troutner.

**Student Loans**—Mr. McFarland, Chairman; Mr. Beck, Mr. Knott, Mr. Meacham, Mr. Nelson.

**Student Welfare and Activities**—Mr. Wallace, Chairman; Mr. Warren Anderson, Mr. Beck, Mr. Davidson, Mr. Hammitt, Mr. House, Mr. Hoyt, Mr. Kennedy, Mr. Lewis, Mr. Meacham, Mr. Mott, Mr. Nereson, Mr. M. Eugene Smith, Mr. Troutner.

**Teacher Education**—Dr. Semans, Chairman; Dr. Bowls, Mr. Burlingham, Dr. Clarke, Mr. Cook, Mr. Gertz, Mr. Leach, Mr. McCorkle, Mr. McMahon, Mr. Meacham, Mr. Mott, Mr. Nereson, Dr. Noble, Mr. Vard Shepard, Dr. Whitson, Mr. Winner.

**California Polytechnic Foundation Directors**—Mr. McPhee, President; Mr. McCorkle, Vice President; Mr. Lucksinger, Secretary-Treasurer; Mr. Knott, Mr. Meacham, Mr. Merson, Mr. Miller, Mr. Nelson, Mr. Troutner, Mr. Shepard, Mr. Wilson.\*

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

† Member of the State Bureau of Agricultural Education with headquarters at California State Polytechnic College, San Luis Obispo, California.

## FACULTY COMMITTEES

### VOORHIS UNIT

The following faculty committees will serve at the Voorhis campus during the school year 1949-1950.

**Instructional Council**—Mr. Gibson, Chairman; Mr. Batcheller, Mr. Canham, Mr. Englund, Dr. Lamiman, Mr. McGrath, Mr. Wittenberg.

**Alumni Activities**—Mr. Moran, Chairman; Mr. Kempton, Mr. Stull, Mr. Procsal.

**Campus Development**—Mr. Batcheller, Chairman; Mr. Conad, Mr. Kempton, Mr. Wilson.

**Catalog**—Mr. Wittenberg, Chairman; Dr. Lamiman, Mr. Lint, Mr. McGrath, Mr. Peavey.

**Class Advisers and Graduation**—Mr. Brown, Chairman; Mr. Welch, Mr. Kat-tenhorn, Mr. Dmitman.

**Farm Advisory**—Mr. Canham, Chairman; Mr. Englund, Mr. Peters, Mr. Wittenberg.

**Host**—Mr. Conard, Chairman; Mr. Batcheller, Mr. Peavey, Mr. Whitehead.

**Library**—Dr. Lamiman, Chairman; Mr. Lint, Mrs. Penley.

**Placement**—Mr. Appel, Chairman; Mr. Canham, Mr. Batcheller, Mr. Englund.

**Public Relations**—Mr. Wittenberg, Chairman; Mr. Appel, Mr. McGrath, Mr. Stull.

**Scholarship**—Mr. Englund, Chairman; Mr. Batcheller, Dr. Lamiman, Mr. Wittenberg.

**Student Loans**—Mr. Boltz, Chairman; Mr. Aschenbrenner, Mr. Prickett.

**Student Welfare and Activities**—Mr. McGrath, Chairman; Mr. Boltz, Mr. Conard, Mr. Lint, Mr. Stull, Mr. Weeks.

**Teacher Education**—Mr. Wittenberg, Chairman; Mr. Aschenbrenner, Mr. Englund.

## FACULTY

McPHEE, JULIAN A.—B.S., M.A.-----President

B.S. from University of California, 1917; M.A. from University of California, 1928.

Experience: Agriculture Extension Service, University of California; United States Navy; Director of Vocational Agriculture, El Dorado County High School and Gilroy Union High School; Assistant State Supervisor of Agricultural Education (California); Chief, Bureau of Agricultural Education, State Department of Education (California); Director, War Food Production Training Program for California; Chief of Division of Readjustment Education; Assistant Executive Officer, State Board of Vocational Education; State Director of Vocational Education (California).

President, California State Polytechnic College since 1933.

McCORKLE, C. O.—B.S., M.S.-----Dean of Instruction

B.S. from University of California, 1927; M.S. from University of California, 1937.

Experience: Director of Agriculture and Critic Teacher, Red Bluff Union High School; Executive Secretary, California Association Future Farmers of America; Assistant Teacher Trainer Agricultural Education, Bureau of Agricultural Education; Head of Agricultural Division, California Polytechnic; Research Assistant on Giannini Foundation of Agricultural Economics, University of California; Instructor Agricultural Economics; Subject Matter Specialist, Bureau of Agricultural Education, State Department of Education (California); Assistant to President, Dean of Instruction, California State Polytechnic College.

At California State Polytechnic College since 1932.

\* WILSON, HAROLD O.—B.S.-----Dean of Voorhis Unit, California  
State Polytechnic College

B.S. from University of California, 1932; additional study at Fresno State College; graduate study at University of California at Los Angeles.

Experience: Director of Agriculture, Excelsior Union High School, Norwalk; Instructor of Agriculture and head of the Swine Department at California Polytechnic School; Regional Supervisor of Agricultural Education, State Department of Education (California), 1941-1946.

At California State Polytechnic College since 1936. (With the exception of time spent with the Bureau of Agricultural Education.)

MEACHAM, VERNON H.—B.S.-----Dean of Student Welfare

B.S. from University of California, 1924.

Experience: Agricultural instructor, Gilroy High School; Director of Agriculture, Manteca High School; Dairy Herdsman, California State Polytechnic College; Instructor at California State Polytechnic College; In charge of Voorhis Unit, California State Polytechnic College, 1939-1943; College Representative in charge of Navigation Program, Naval Flight Preparatory Program; Instructor mathematics and physics, Naval Academic Refresher Unit Program.

At California State Polytechnic College since 1929.

NELSON, DONALD S.—A.B.-----Business Manager

A.B. from Stanford, 1930.

Experience: California State Department of Finance, Budgets, and Accounts; Comptroller, Fresno State College.

At California State Polytechnic College since 1943.

WINNER, C. PAUL—B.S.-----Assistant Dean in Charge of Admissions and Guidance

B.S. from Montana State College, 1931.

Experience: Utah Construction Company; Director of Vocational Agriculture, Valier High School, Valier, Montana; Director of Vocational Agriculture and Critic

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.



Teacher, Elk Grove Union High School; Director of Vocational Agriculture and Critic Teacher, Arroyo Grande Union High School; in charge, Training Records for Cadets in U. S. Naval Flight Preparatory School and for trainees in the Naval Academic Refresher Unit Program; Acting Recorder; Teacher Trainer of Agricultural Education 1946-47.

At California State Polytechnic College since 1940.

SHEPARD, VARD M.—B.S.-----Assistant Dean in Charge of Agriculture

B.S. in Agriculture, University of Minnesota, 1923.

Experience: U.S.D.A. Bureau of Plant Industry, 1923-1924; So. St. Paul Union Stockyards Company, 1924-1929; Instructor of Agriculture, Galt High School, 1929-1930; Instructor of Vocational Agriculture, West Side High School, Los Banos, 1930-1932; Head of Animal Husbandry Department, California State Polytechnic College, 1932-1937; Special Representative, South San Francisco & Stockton Union Stockyards, 1937-1940; Manager, Stockton Union Stockyards, 1940-1941; Extension Specialist in Animal Husbandry, University of California, 1941-1947.

At California State Polytechnic College since 1947.

KNOTT, C. E.—B.S., M.S.-----Assistant Dean in Charge of Engineering  
and Industrial Division

B.S., University of California, 1916; M.S., University of California, 1917.

Experience: Apprentice Machinist at Pomona Manufacturing Company; Substation Operator for Pacific Gas & Electric Company, Berkeley; U. S. Army Overseas, World War I; Evaluation of Power Plants and Substations for Pacific Gas & Electric Company, San Francisco; At California Polytechnic, instructor in industrial department, and Head, Industrial Division; Instructor, navigation, U. S. Naval Flight Preparatory School, and physics in the Naval Academic Refresher Unit.

At California State Polytechnic College since 1921.

SEMANS, HUBERT H.—A.B., M.A., Ph.D.-----Assistant Dean  
in Charge of Science and Humanities

A.B. from Whittier College, 1930; M.A. from the University of Southern California, 1931; Ph.D. from the University of Southern California, 1948.

Experience: Research Fellow, California Bureau of Juvenile Research, 1930-1931. Travel in England, Holland, Germany, Austria, Switzerland, and France, 1934. Teacher and Chairman of Counseling and Guidance at San Luis Obispo Junior High School, 1931-1936; Vice Principal and Supervisor of Instruction at San Luis Obispo Junior High School, 1934-1940; Instructor at San Luis Obispo High School and Junior College, 1936-1940; Principal at Junior High School, San Luis Obispo, 1940-1945; Instructor, English and History in the Naval Academic Refresher Unit and the U. S. Naval Flight Preparatory School.

At California State Polytechnic College since 1945.

\* GIBSON, J. CORDNER—B.S.-----Assistant Dean of Voorhis Unit

B.S., University of California, 1937.

Experience: Director of Vocational Agriculture, Downey and Whittier Union High Schools; U. S. Army; Regional Supervisor, Bureau of Agricultural Education. At California State Polytechnic College since 1949.

BOERMAN, LEONA M.-----Secretary to President

HOUSE, HENRY—B.S.-----Coordinator of Student Affairs

B.S., California State Polytechnic College, 1943.

Experience: Director of Vocational Agriculture, Brawley Union High School, 1946-1947; U. S. Marine Corps, Officer.

At California State Polytechnic College since 1947.

PHILBIN, LEO F.—B.S.-----Registrar

B.S. from California State Polytechnic, 1944.

Experience: Instructor, aircraft, Naval Flight Preparatory School, California Polytechnic; Aircraft instructor, Fourth Airforce Headquarters, San Francisco; Civilian Training Administrator, Salinas Army Air Base, Salinas; Training Officer In Charge, Veterans Administration Office, San Luis Obispo.

At California State Polytechnic College since 1948.

CAMP, G. MABEL-----Recorder

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

JONES, JOHN E.—B.S.-----Placement Secretary  
B.S., California State Polytechnic College, 1947; additional study, California State Polytechnic College, 1947-48.

Experience: Ranching and owner of retail grocery market; Assistant Manager Service Unit, Union Oil Co.; U. S. Navy; Student Manager, Associated Students, California State Polytechnic College.

At California State Polytechnic College since 1947.

TROUTNER, WILLIAM R.—B.S.-----Supervisor of Resident  
Students and Instructor in Plant Sciences

Graduated from California State Polytechnic College with Vocational Certificate, 1934; Received B.S., University of California (Davis), 1938.

Experience: Director of Agriculture, Pomona High School and Junior College; Director of Agriculture and Critic Teacher, San Luis Obispo Senior High School (half-time high school and half-time California State Polytechnic College); In charge of housing for U. S. Naval Flight Preparatory School and Naval Academic Refresher Unit Program; Instructor communications, Naval Flight Preparatory School.

At California State Polytechnic College since 1942.

ABEL, GEORGE C.-----Electrical Engineering

Experience: From apprentice to field engineer, Westinghouse Electrical Manufacturing Co.; U. S. Navy, seven years as operating engineer, Los Angeles Railway Corp.; preliminary test engineer and installation instructor, Los Angeles Ship and Drydock Corp.; electrical foreman, West Coast Ship and Drydock.

At California State Polytechnic College since 1947.

ALLEN, FRANCIS S.—Litt.B., B.S.-----Reference Librarian

Litt.B., Xavier University, Cincinnati, Ohio, 1933; graduate work at St. Louis University, St. Louis, Missouri, and Loyola University, Chicago, Illinois; B.S. in library science, University of Illinois, 1941.

Experience: Instructor, English, Latin, St. Ignatius High School, Chicago; librarian, Seattle College, Seattle; officer U. S. Army; librarian, Shrivenham American University, Shrivenham, Berks, England; assistant circulation librarian, Oregon State College.

At California State Polytechnic College since 1949.

ALDERSON, JOHN T.—B.E.-----Mathematics

B.E., University of Southern California, 1946.

Experience: Officer in U. S. Navy.

At California State Polytechnic College since 1947.

ANDERSON, RICHARD A.—B.S., M.S.-----Physical Education and Athletics

B.S., University of Southern California, 1942; M.S., University of Southern California, 1947.

Experience: Playground director, lifeguard, Los Angeles Playground and Recreation Department; officer in U. S. Navy; swimming pool director, South Pasadena; assistant instructor in physical education, University of Southern California.

At California State Polytechnic College since 1947.

ANDERSON, WARREN R.—B.S.-----Electrical Engineering

B.S. in Agriculture, University of Minnesota, 1939; B.S., Electrical Engineering, Louisiana State University, 1944.

Experience: Taught agricultural science in public schools of Windom, Minnesota; Additional training at Central Signal Corps School; Plant Engineering Agency, Philadelphia; Engineering testing bureau of the Automatic Electric Company of Chicago.

At California State Polytechnic College since 1946.

\*APPEL, EDWARD CARL, JR.—B.S.-----Agricultural Inspection

B.S. at Oregon State College, 1940.

Experience: Agricultural Inspection, Department of Agriculture, San Bernardino County; Deputy County Agricultural Commissioner; Served in U. S. Navy as an officer, 1944-1946.

At California State Polytechnic College since 1946.

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

- \*ASCHENBRENNER, ALBERT—A.B., M.S.**-----English  
 A.B., Whitman College (Washington) 1940; M.S., University of Southern California, 1947; Additional graduate work, Montana University.  
 Experience: Custer County High School, Miles City, Montana; Infantry School, Fort Benning, Georgia; Served in U. S. Army for four years as an officer.  
 At California State Polytechnic College since 1947.
- BALCH, ROSCOE K.—B.S., D.V.M.**-----College Veterinarian; Poultry Pathology; Biological Science  
 B.S., Washington State College, 1945; D.V.M., Washington State College, 1947.  
 Experience: U. S. Army; practice of veterinary medicine, Dayton, Washington.  
 At California State Polytechnic College since 1948.
- \*BATCHELLER, OLIVER AMBROSE—B.S.**-----Ornamental Horticulture  
 B.S. from Oregon State College in 1936; Additional graduate work at Oregon State College.  
 Experience: Assistant Farm Adviser, Oregon; Foreman and salesman, California Nursery Company, California; In charge of Nursery Exhibit World's Fair in San Francisco; Served in the Field Artillery, U. S. Army as a Plans and Training officer, 1941 to 1946.  
 At California State Polytechnic College since 1946.
- BAYLESS, HILDRETH PEARL—B.S., M.A.**-----English  
 B.S. from Tarkio College (Missouri) 1925; M.A. from University of Denver, 1939; Additional graduate work at University of Wyoming and University of Southern California.  
 Experience: Instructor in English, Tarkio College; Instructor of English in high schools of Missouri, Iowa, and Wyoming; Instructor of English, Mare Island Naval Apprentice School, Vallejo, California.  
 At California State Polytechnic College since 1946.
- BECK, CARL G.—B.S.**-----Guidance, Accounting, and Agricultural Economics  
 B.S. from Colorado State College, 1921. Additional graduate study at Colorado State and University of California at Berkeley and Davis.  
 Experience: Director of Agriculture, Del Norte Union High School (Colorado); Principal, Del Norte Union High School (Colorado); Director of Agriculture at Middletown Union High School and Colusa Union High School, California; with American Expeditionary Force, Field Artillery, World War I; Instructor mathematics and communications, U. S. Naval Flight Preparatory School; Instructor mathematics, Naval Academic Refresher Unit; Advisor for Poly Royal, 1933—  
 At California State Polytechnic since 1932.
- BENNION, LYMAN L.—B.S.**-----Head of Animal Industries Activities  
 B.S. from Utah State College, 1929.  
 Experience: Sales Department Purina Mills; American Packing Company, Union Stockyards, Ogden, Utah; Director of Agriculture, Salinas Union High School; Agricultural Extension Service, University of California.  
 At California State Polytechnic College since 1938.
- BETZ, ELLARD W.—B.A.**-----Machine Shop  
 B.A., Santa Barbara State College, 1942.  
 Experience: U. S. Navy; teacher of industrial arts, Victor Valley High School, Victorville.  
 At California State Polytechnic College since 1947.
- BILLIE, RALPH O.—B.S., M.S.**-----Agricultural Engineering  
 B.S., University of Minnesota, 1922; M.S., University of Minnesota, 1940.  
 Experience: 16 years as Instructor in Agriculture in secondary schools of Minnesota; instructor in Agricultural Engineering and Industrial Arts, State Teachers College, Platteville, Wisconsin.  
 At California State Polytechnic College since 1948.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

BLAIR, HELEN B.—A.B., B.S. in L.S.-----Head Cataloger  
A.B., Louisiana State University, 1940; B.S. in L.S., Louisiana State University, 1942.

Experience: Librarian, Covington High School, Covington, Louisiana; cataloger in library, University of Alabama; cataloger, Tulane University, New Orleans; cataloger, University of Texas.

At California State Polytechnic College since 1948.

BLOOM, EMMETT A.—B.S.-----Animal Husbandry  
B.S. from University of California at Davis in Animal Sciences, 1934.

Experience: Zoology laboratory assistant, University of California; Teacher Vocational Agriculture, Ripon Union High School; Teacher Vocational Agriculture, Layton Joint Union High School; Teacher Vocational Agriculture, Corning Union High School.

At California State Polytechnic College since 1946.

\* BLOTZ, HOWARD O.—B.S., M.S.-----Ornamental Horticulture  
B.S., University of California, 1941; M.S., University of California, 1947.

Experience: Officer in U. S. Army; landscape architect in private practice; instructor in landscape gardening, Albany Evening High School, Albany, California.

At California State Polytechnic College since 1947.

BONGIO, ENRICO P.—A.B.-----Welding  
A.B., Chico State College, 1948.

Experience: Electric welder for Chicago Bridge and Iron Company, Eureka, California; U. S. Army; welder and maintenance, Churchill Frozen Foods Company, Eureka; general metal shop work, Woodsman Power Saw Company, Eureka; electric welder, Eureka Boiler Works & Steel Products; shop instructor, Sonoma Valley Union High School, Sonoma, California.

At California State Polytechnic College since 1948.

BOWEN, DONALD C.—B.E.E.-----Electrical Engineering  
B.E.E., Rensselaer Polytechnic Institute, Troy, New York, 1948.

Experience: Electronics engineer, Gurley Company, Troy; Civil Service P-3, Acting Chief, San Francisco Radiophoto Section, U. S. O. W. I.; radio mechanic, Colonel Airlines, Inc., La Guardia Field, New York; machinist, Ford Motor Company, Ypsilanti, Michigan; machinist, American Broach Company, Ann Arbor, Michigan.

At California State Polytechnic College since 1948.

BOWLS, WOODFORD E.—A.B., M.A., Ph.D.-----Head of Physical Science Department  
A.B. at University of California in 1932; M.A. in 1935; and Ph.D. in 1937.

Experience: Pacific Gas and Electric Company, Maintenance Foreman in summer camps; teaching fellow in physics at University of California; Teaching Assistant in physics at University of California; In charge of the physics program for the U. S. Naval Flight Preparatory School and the Naval Academic Refresher Unit.

At California State Polytechnic College since 1937.

BOYLE, KENNETH D.—B.S.-----Dairy Manufacturing  
B.S., University of Minnesota, 1942.

Experience: Butter and ice cream, Neepawa Creamery and Produce Co., Neepawa, Manitoba, and Central Creameries, Brandon, Manitoba; Royal Canadian Air Force; on research staff and foreman in experimental plant for food processing and market milk, Golden State Co., Ltd., San Francisco.

At California State Polytechnic College since 1947.

BROMLEY, J. PHILIP—B.S., M.S.-----Economics and Agricultural Economics  
B.S. in business education from the University of Southern California, 1936;

Additional graduate work, Columbia University, Texas A. & M., and the University of California.

Experience: Taught elementary school, 1934-36; taught commerce, San Diego State College, 1936-1942; Radar officer, N. S. Naval Reserve, 1942-1945; Commerce Instructor, San Diego State College, 1945-1946.

At California State Polytechnic College since 1947.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

- BROWN, HOWARD—B.S.**-----Ornamental Horticulture  
 B.S. in Agriculture from California Polytechnic in 1943.  
 Experience: Served in the U. S. Army Air Corps 1943-1946; Assistant Instructor of Ornamental Horticulture at California State Polytechnic College from 1946 to 1947.  
 At California State Polytechnic College since 1946.
- \* **BROWN, HOWARD S.—B.A., M.A.**-----Biological Sciences  
 B.A., University of California at Los Angeles, 1943; M.A., University of California at Los Angeles, 1948.  
 Experience: Teaching assistant, University of California at Los Angeles; officer in U. S. Marine Corps.  
 At California State Polytechnic College since 1948.
- BURLINGHAM, HERBERT H.—B.S.**-----Agricultural Education and Teacher Training  
 B.S., Oregon State College, 1929; graduate work, University of California.  
 Experience: Director of agriculture, Willits Junior-Senior High School; director of agriculture, Madera Union High School; director of Agriculture and critic teacher, Paso Robles Union High School; four years as regional supervisor, State Bureau of Agricultural Education, California.  
 At California State Polytechnic College since 1948.
- CAMPBELL, ERLE SIMS**-----Agricultural Mechanics and Farm Superintendent  
 Experience: Farm superintendent for California Packing Corporation on peach, prune, and plum orchards and vineyards; Farm superintendent for John Treanor on prunes, pears, and wine grapes; Past 16 years superintendent of beef cattle, hog, sheep, hay and grain on Lake County Ranch.  
 At California State Polytechnic College since 1947.
- \* **CANHAM, ALBERT E.—B.S.**-----Citrus Fruit Production  
 B.S., University of California at Los Angeles, 1941.  
 Experience: Officer in U. S. Navy; manager of avocado and citrus grove; manager and owner of commercial weed and pest control company; instructor of Vets Palomar College, Vista, California.  
 At California State Polytechnic College since 1948.
- CARTER, LOGAN SAMPSON—B.S., Ph.D.**-----Soils  
 B.S., Oregon State College, 1930; Received Ph.D., Michigan State College, 1934.  
 Experience: Instructor in Soils, Michigan State College, 1930-1934; U. S. Department of Agriculture Soil Conservation Service, new employee training, 1934-1939; Author of numerous publications on chemical and biological changes in soils and soil conservation.  
 At California State Polytechnic College since 1947.
- CLARK, EDWARD H.—B.S., M.S.**-----Physics  
 B.S., University of Rochester, 1943; M.S., University of California at Los Angeles, 1948.  
 Experience: Physicist, Eastman Kodak Company, Rochester, New York; undergraduate teaching assistant, University of Rochester; design engineer, Naval Ordnance Division, Eastman Kodak Company, Rochester; radio engineer, Hughes Aircraft Company, Culver City, California; graduate teaching assistant, University of California at Los Angeles; officer in U. S. Navy.  
 At California State Polytechnic College since 1948.
- CLARKE, STANLEY C. T.—B.A., M.A. and M.Ed., Ed.D.**-----Education and Psychology  
 B.A., University of Alberta, Edmonton, Alberta, 1937; M.A. and M.Ed., University of Alberta, 1942; Ed.D., Stanford University, 1948.  
 Experience: Principal, Two Hills School, Two Hills, Alberta; principal, Carstairs School, Carstairs, Alberta; instructor, University of Alberta, Department of Education; instructor, Canadian Vocational Training, Calgary; officer in Royal Canadian Air Force.  
 At California State Polytechnic College since 1948.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.



CLAY, HENRY P.—B.S.-----Agricultural Engineering  
B.S. in Agriculture, Michigan State College, 1929; one year test course with General Electric Company.

Experience: Taught tractor and truck short course at Michigan State College; Research with the United States Department of Agriculture; 11 years teaching experience at Texas Technological College; Associate Professor of Agricultural Engineering at Texas Technological College, Lubbock, Texas.

At California State Polytechnic College since 1946.

COLLINS, SPELMAN B.—B.S.-----Head of Sheep Husbandry Department  
B.S., University of California, 1925.

Experience: Engaged in range sheep business both as foreman and owner: Director of Agriculture, Middletown, Calistoga, and Livermore high schools; instructor aero engines, U. S. Naval Flight Preparatory School; instructor mathematics, Naval Academic Refresher Unit.

At California State Polytechnic College since 1940.

COLWELL, ARTHUR L.—B.S.-----Mathematics and Supervisor Veterans'  
Housing Project

B.S., University of Idaho, 1925; graduate study at University of Southern California, Stanford University, and University of California.

Experience: Superintendent and Principal, Kuna High School, Kuna, Idaho; Instructor Mathematics, Anaheim Union High School, Anaheim, California; Principal, Templeton Union High School, Templeton, California; Instructor Mathematics and Science, Oakland City Schools, Oakland, California; Principal, South Fork Union High School, Garberville, California; Instructor Mathematics, Fortuna Union High School, Fortuna, California; taught mathematics and physics in the U. S. Naval Flight Preparatory School and the Naval Academic Refresher Unit.

At California State Polytechnic College since 1943.

\*CONARD, HAVAN Q.—B.S.-----Agricultural Mechanics  
B.S., Iowa State College in Agricultural Engineering, 1943.

Experience: Taught in Engineering Department, Iowa State College, 1945 and 1946; served as an aircraft armament officer in the U. S. Armed Forces 1943-45.

At California State Polytechnic College since 1946.

CONKLING, ROBERT J.-----Welding

Three years at California State Polytechnic College, majoring in Mechanical Engineering, with minor in Welding.

Experience: Instructor's Aid, San Fernando High school; in charge of Base Repair and Maintenance Shop in U. S. Army; summer employment as journeyman welder for various southern California contractors; part-time welding instructor California State Polytechnic College.

At California Polytechnic College since 1949.

COOK, DAVID W.—B.S.-----Mathematics and Electrical Engineering  
B.S., University of California, 1937.

Experience: Examiner Board of Fire Underwriters of the Pacific; Engineer, Insurance Company of North America; taught navigation in U. S. Naval Flight Preparatory School and acted as head of the Mathematics Department for the Naval Academic Refresher Unit and U. S. Naval Flight Preparatory School.

At California State Polytechnic College since 1941.

COOL, LEONARD R.—B.S.-----Electrical Engineering

B.S., University of California, 1947.

Experience: U. S. Navy; junior estimator, Pacific Gas and Electric Co.

At California State Polytechnic College since 1947.

CRUIKSHANKS, ANDREW N.—A.B., M.A.-----Political Science

A.B., University of California, 1931; M.A., Stanford University, 1933.

Experience: Sacramento High School, instructor in social studies, 1933-1936; Fort Bragg Schools, social studies and economics, 1936-1947; extensive experience in evening school work covering international relations and community forums.

At California State Polytechnic College since 1947.

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

- CULBERTSON, GUY K.-----Printing  
Experience: 16 years as apprentice, journeyman printer, composing room foreman, Deadwood, South Dakota; U. S. Army; five years as machinist-operator, Santa Monica and Venice, California; member of committee directing on-the-job apprentice training for International Typographical Union in Southern California.  
At California State Polytechnic College since 1947.
- DAVIDSON, HAROLD P.—B.S., M.A.-----Chairman of Music Department  
B.A., Pomona College, 1929; M.A., Claremont College, 1932; additional graduate work, University of Southern California.  
Experience: Director of All-City Pomona P.T.A. Chorus; Head of Music Department, Emerson Junior High School, Pomona; Master Training Teacher, Claremont Colleges; taught English in U. S. Naval Flight Preparatory School and the Naval Academic Refresher Unit.  
At California State Polytechnic College since 1936.
- DEUEL, J. C.-----Housing and Student Employment  
Experience: U. S. Army, Commissioned officer rank of Major; served in Cuba, Panama, Mexico, France, and Germany. Granted leave of absence from California Polytechnic, February 10, 1942, to September 1, 1945, to serve in U. S. Army. Was discharged September 1, 1945, with rank of Major.  
At California State Polytechnic College since 1920.
- DILTS, RALPH W.—A.B., M.A.-----Political Science and History  
A.B. from Montana State University in history, 1936; M.A. in history and political science, Montana State University, 1938; additional graduate work at Montana State University and University of California.  
Experience: Instructor secondary school at Stevensville, Montana; Assistant at Montana State University; Assistant at University of California; three years' experience with Bureau of Reclamation under Department of Interior; Instructor at Naval Academic Refresher Unit, California Polytechnic, 1944-46.  
At California State Polytechnic College since 1946.
- DOUGHERTY, PAUL—B.S.-----Head of Field, Fruit, and Truck Crops Department  
B.S. from University of California, 1914  
Experience: Farm Advisor Imperial County; Farrier, United States Army; Supervisor Advanced Registry Dairy Tests, University of California; Manager Modesto Fruit Exchange; managed and operated own ranch; Director of Agriculture, Washington Union High School, Centerville; Instructor Communications in U. S. Naval Flight Preparatory School.  
At California State Polytechnic College since 1939.
- DRUMM, GEORGE M.—B.S., M.A.-----Head of Dairy Husbandry and Dairy Manufacturing Department  
B.S., Kansas State College, 1921; M.S. from Iowa State College, 1922.  
Experience: Instructor of Dairying, University of California; Herdsman for numerous commercial dairy farms; Farm Manager, Ranch Del Monte, Carmel, and Patrick Farms, Salinas; Official judge of Jersey, Guernsey, and Holstein Friesian cattle.  
At California State Polytechnic College since 1931.
- DUNKELBERGER, MARY E.—A.B., B.S. in L.S.-----Assistant Cataloger  
A.B., Social Studies, Pennsylvania State College, 1941; B.S. in L.S., School of Library Service, Columbia University, 1948.  
Experience: Assistant Cataloger, Martin Library, York, Pennsylvania; acting librarian, High School, Red Lion, Pennsylvania.  
At California State Polytechnic College since 1948.
- DUNN, JOHN E.—B.S.-----Agricultural Engineering  
B.S., Oregon State College, Corvallis, Oregon, 1943.  
Experience: Officer in U. S. Navy; service salesman, Auto Sales Company, Colfax, Washington; maintenance superintendent, California Packing Corporation, Toppenish, Washington; serviceman, J. A. Freeman & Son, Portland, Oregon; testing engineer and service representative, R. M. Wade & Company, Portland, Oregon.  
At California State Polytechnic College since 1948.

- ELLIS, GERALD E.—A.B.,**-----Architectural and Engineering Drafting  
A.B., Santa Barbara State College, 1943.  
Experience: Architectural draftsman with industrial contractors for two years; served in U. S. Navy as a commissioned officer, 1943-1946.  
At California State Polytechnic College since June, 1946.
- ELSTON, CHARLES A.—A.B., M.S.**-----Mathematics  
A.B., Santa Barbara State College, 1932; M.S. from University of Southern California, 1940.  
Experience: Eight years teaching in elementary schools, Santa Barbara County, 1934-1942; Instructor of arithmetic and mechanical drawing, Head of Mathematics Department, San Luis Obispo Junior High School, 1942-1947; Instructor of mathematics, Adult Evening School, San Luis Obispo, 1942-1947; Field experience in surveying with the U.S.E.D. and the Southern Pacific Company.  
At California State Polytechnic College since 1947.
- \*ENGLUND, CARL R.—B.S.,**-----Deciduous Fruit and Crops  
B.S., University of California at Berkeley, 1939.  
Experience: Instructor in Vocational Agriculture, Reedley High School and Junior College, Reedley, California.  
At California State Polytechnic College since 1948.
- ESSIG, FREDERICK MONROE—A.B., Ph.D.**-----Zoology and Plant Pathology  
A.B., University of California, 1917, and Ph.D., University of California, 1920; additional graduate study at the University of Southern California for B.D.  
Experience: Seven years teaching experience, Ashbury College, Kentucky, and University of California, Los Angeles; 40 months Army service World War II as chaplain.  
At California State Polytechnic College since 1946.
- FELLOWS, ALBERT MELVIN**-----Head of Printing Department  
Special training courses in Journalism, Advertising, Mechanical Art and Print Shop Management; served in the U. S. Army in World War I; journeyman printer and supervisor of apprentice training programs for 30 years; superintendent of printing plants in Kansas City, Kansas, and Birmingham, Alabama.  
At California State Polytechnic College since 1946.
- FINDAHL, ROGER N. B.S.**-----Animal Husbandry  
B.S., University of Minnesota, 1948.  
Experience: Officer in U. S. Army.  
At California State Polytechnic College since 1948.
- FISHER, CLYDE P.—A.B., M.A.**-----Mathematics  
A.B., University of Oklahoma, 1942; M.A., University of Southern California, 1947.  
Experience: Instructor, Oklahoma University, one year; served in U. S. Army, 1942-1945, instructor in mathematics, gunnery, and survey; teaching assistant, mathematics, University of Southern California, 1946-1947.  
At California State Polytechnic College since 1947.
- FOLSOM, V. A.—B.S., M.S.**-----Mathematics and Physics  
B.S. in physics, Iowa State College in 1934; M.S. in physics from Colorado University, 1937; additional graduate work in mathematics at Southern Methodist University.  
Experience: Seven years secondary school and junior college teaching experience in California; served as commissioned officer in U. S. Navy, 1943-1946; Assistant Professor of Mathematics at Southern Methodist University.  
At California State Polytechnic College since 1946.
- FREEMYERS, RUSSELL LORAIN—A.B.**-----Engineering Drafting  
A.B. and a Special Secondary in Industrial Education at Chico State College, 1946. Completed additional work at Chico State College summer sessions in 1941 and 1946.  
Experience: Served in U. S. Army Air Forces as commissioned officer, 1942-1945.  
At California State Polytechnic College since 1947.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

- GARTER, MORRIS GERALD—A.B., A.M.-----English and Visual Aids Education  
A.B. Degree, Western State Teachers College, 1937; A.M., University of Michigan, 1947.  
Experience: Instructor in Michigan High Schools, mathematics, history, English, economics, 1931-1937; Instructor in economics, history and government, Durand High School, 1937-1942; Engineer, Willow Run Bomber Plant, 1942-1945; general aeronautical mechanics, U. S. Navy, 1945-1947.  
At California State Polytechnic College since 1947.
- GERTZ, FRED H.—B.A., M.A.-----English  
B.A., Beloit College, Wisconsin, 1937; M.A., Lehigh University, Bethlehem, Pennsylvania, 1939.  
Experience: Instructor in English, Lincoln Junior High School, Beloit, Wisconsin; teaching fellowship in English, Lehigh University, Bethlehem, Pennsylvania; associate professor of English and department head at Pratt Institute, Brooklyn, New York; instructor of College English and Speech, Long Island University, Brooklyn, New York; assistant professor of College English in charge of courses in English for engineers, Alfred University, Alfred, New York.  
At California State Polytechnic College since 1948.
- GLIKBARG, ROBERT E.—A.B., M.B.A.-----Industrial Economics  
A.B., Stanford University, 1940; M.B.A. Stanford Graduate School of Business, 1943.  
Experience: Assistant personnel director, Food Machinery Corporation; supervisor wage and salary administration, Matson Navigation Company; chief wage specialist, San Francisco Naval Shipyard.  
At California State Polytechnic College since 1948.
- GLOVER, E. C.—B.S., A.M.-----Head of Electrical Engineering Department  
B.S., Kansas State College of Agriculture and Applied Science, 1933; A.M., mathematics and industrial arts, Colorado State College of Education, 1941.  
Experience: Research Engineer, Design Engineer, Plant Electrical Engineer; five years' experience in mathematics and industrial arts in Kansas, Colorado and California.  
At California State Polytechnic College since 1946.
- GOLD, MARCUS—B.A., B.L.S.-----Visual Education Librarian  
B.A., University of California, 1942; B.L.S., University of California, 1947.  
Experience: U. S. Army; cataloging assistant, University of California Library.  
At California State Polytechnic College since 1947.
- GRAVES, THEODORE G.—B.A.-----Air Conditioning and Refrigeration  
B.A., Humboldt State College, 1940; graduate work, Santa Barbara College.  
Experience: Instructor in wood shop, Paia School, Paia, Maui, T. H.; instructor in general metal, Maui High School, Maui, T. H.; teacher at large in drafting and wood shop, San Francisco; lecturer in metal shop, Santa Barbara College.  
At California State Polytechnic College since 1947.
- GRAY, HENRY E.—B.S., A.M.-----Biological Science  
B.S., University of Missouri, 1943; M.S., University of Missouri, 1947. Completed additional graduate work at the University of Missouri, 1946 and 1947.  
Experience: Instructor in applied entomology, University of Missouri, 1942-1943; Served in U. S. Navy, 1943-1946; Instructor in applied entomology and graduate student, University of Missouri, 1946.  
At California State Polytechnic College since 1947.
- GRAY, STANTON—B.S.-----Crops and Fruits  
B.S., University of California, 1930.  
Experience: Reared on diversified farm; Agricultural instructor at Kingsburg Joint Union High School, Hamilton City High School, and Corning Union High School; Instructor at California State Polytechnic College, Voorhis Unit, three years; Instructor at Yuba City Union High School; Three years' experience with fruit farms and fruit canning companies, 1943-1946.  
At California State Polytechnic College 1940 to 1943 and since 1946.

GUSTAFSON, LESTER W.—B.S.-----Head of Aeronautical Engineering Department

B.S. Degree in aeronautical engineering, University of Minnesota, 1932; completed additional graduate study, University of Minnesota, 1933.

Experience: Assistant to Professor in experimental engineering laboratory, University of Minnesota, 1933-1935; Experimental and development engineering on internal combustion engines, Minneapolis-Moline Implement Company, 1935-1937; Experimental and development engineering with Tropic Air Corporation of Chicago, 1937-1939; Aerodynamics engineering, Lockheed and Vega Aircraft Corporations, 1939-1945; Hughes Aircraft Company, 1945-1947.

At California State Polytechnic College since 1947.

HAGGBERG, MARVIN D.—B.A.-----Aeronautical engineering

B.A., Santa Barbara State College, 1940.

Experience: Instructor, Aero Industries Technical Institute, Los Angeles; teacher, Tulare Union High School, Tulare, California; ground instructor and pilot, U. S. Army; teacher, Lincoln Junior High School, Santa Monica, California; instructor, University of California at Santa Barbara College; instructor, University of Southern California College of Aeronautics, Santa Maria.

At California State Polytechnic College since 1948.

HALL, RICHARD-----Aeronautical Engineering

Graduate of California State Polytechnic College, 1939; holds Civil Aeronautics Authority Aircraft and Engines certificate and Ground School certificate.

Experience: Aircraft mechanic at Lockheed Aircraft in Burbank, and Hancock College of Aeronautics, Santa Maria, 1939-1940; Mechanic, Sacramento Air Depot on aircraft and aircraft engines, 1940-1946; Received training on Packard built Rolls Royce aero engines, 1942; and Allison aircraft engines, 1944.

At California State Polytechnic College since 1947.

HAMMITT, LEWIS E.—B.S., M.A.-----Physics

B.S. in physics, Whitman College (Washington) 1926; M.A., University of Washington, 1940.

Experience: Taught mathematics, physics, and chemistry at Mabton, Washington, and Longview, Washington; Officer and qualified Naval Air Navigator, U. S. Navy, 1942-1946.

At California State Polytechnic College since 1946.

HANSHEW, C. E.—B.A., M.A.-----Mathematics

B.A., Iowa State Teachers College, 1925; M.A., University of Michigan, 1937.

Experience: Teaching and administration in mathematics and physics at Baxholm, Iowa, and Durant, Michigan; Engineering and sales at National Twist Drill and Tool Company, Rochester, Michigan.

At California State Polytechnic College since 1946.

HARDEN, F. SHELDON—A.B.-----Physical Education and Athletics

B.A., University of Santa Clara, Santa Clara, California, 1943; graduate work at College of Pacific and Sacramento State College.

Experience: Officer in U. S. Army; player-coach, Sacramento Nuggets.

At California State Polytechnic College since 1948.

HARDGROVE, THOMAS H.—B.M.E.-----Mechanical Engineering

B.M.E., New York University, 1938; graduate work, New York University.

Experience: Assistant plant engineer, Lederle Laboratories of American Cyanamid Co., Pearl River, New York; field service engineer, Sperry Gyroscope Co., Hoboken, New Jersey; plant engineer, International Nickel Co., Bayonne, New Jersey; assistant plant engineer, Stewart Warner Co.

At California State Polytechnic College since 1947.

- HARDY, JOHN A.—B.S., M.S.**.....Chemistry  
 B.S., North Dakota Agricultural College, 1932; M.S., University of Minnesota, 1940; additional work at California Institute of Technology; additional graduate work at University of Minnesota.  
 Experience: Principal and instructor, science and mathematics, Belfield High School, Belfield, North Dakota; instructor and principal, Regent High School, Regent, North Dakota; superintendent of schools, Forbes, North Dakota; chemistry instructor, Hibbing Junior College, Hibbing, Minnesota; mathematics instructor, Berkeley High School; instructor, University of California extension division.  
 At California State Polytechnic College since 1949.
- HAROLDSON, HUGH W.—B.S.**.....Mechanical Engineering  
 B.S., University of California, 1939; graduate work, University of California.  
 Experience: Draftsman, Southern Pacific Co., seven years as marine engineer, U. S. Maritime Commission.  
 At California State Polytechnic College since 1947.
- HEALEY, JOHN R.—B.A.**.....Journalism and Publications  
 B.A., San Jose State College, 1941.  
 Experience: Reporter, San Jose News; public relations, McClellan Field, Sacramento; reporter, Sacramento Union; Valley editor, Modesto Bee.  
 At California State Polytechnic College since 1947.
- HIGH, LEO O.—A.B., M.A.**.....Mathematics  
 A.B., Antioch College, Ohio, 1923; M.A., Ohio State University, 1935; Additional graduate study, University of Southern California.  
 Experience: Instructor of mathematics and science, Van Wert County High School and Harding Junior High School, Ohio; instructor in mathematics and science, El Segundo Senior High School, California.  
 At California State Polytechnic College since 1946.
- HIGHUM, ORVIE—B.S., M.S.**.....Air Conditioning and Refrigeration  
 B.S., University of North Dakota, 1934; M.S., University of Southern California, 1949.  
 Experience: Rodman, State Highway Department, Grand Forks, North Dakota; junior engineer, F. E. R. A. and Bureau of Biological Survey, Bismarck, North Dakota; instructor, University of North Dakota; clerk, salesman, assistant sales promoter, Standard Oil Company, Minot, North Dakota and Green Bay, Wisconsin; officer in U. S. Army; design engineer, Riverside Cement Company, Riverside, California; engineer, C. F. Braun & Company, Alhambra, California; registered professional mechanical engineer, State of California.  
 At California State Polytechnic College since 1948.
- HOLMQUIST, ROBERT E.—B.A., M.A.**.....Physics  
 B.A., University of Oregon, in physics, in 1932; M.A., physics, Oregon State College, 1936; Additional graduate work, Purdue University and University of Washington.  
 Experience: Teaching assistant in physics, University of Oregon, and Oregon State College; instructor at University of Oregon; teaching fellow at Purdue University; teaching fellow, University of Washington and supervised teaching in high school at Seattle; inspection supervisor, Boeing Aircraft Company, 1941-1945.  
 At California State Polytechnic College since 1946.
- HOOVER, RALPH W.**.....Animal Husbandry and Agricultural Mechanics  
 Experience: Instructor in horseshoeing and blacksmithing, U. S. Army; Horse-shoer, Porterville, California.  
 At California State Polytechnic College since 1948.
- HOOVER, ROBERT F.—B.A., M.A., Ph.D.**.....Botany and Biological Sciences  
 B.A., Stanford University, in botany in 1934; M.A. in botany, University of California, 1935; and Ph.D., University of California, 1937.  
 Experience: Teaching assistant, University of California; Instructor, Yakima Valley Junior College; Taught botany, zoology, and physiology. Officer Army Medical Corps, 1942-1946.  
 At California State Polytechnic College since 1946.



- HOUK, A. L.—B.S., M.S., Ph.D.**.....Chemistry  
 B.S., Michigan State College, 1926; M.S., Michigan State College, 1928; Ph.D., Pennsylvania State College, 1933.  
 Experience: Chemistry instructor, Michigan State College; Chemistry instructor, Pennsylvania State College; Research chemist for the Rohn and Haas Company, Philadelphia, Pennsylvania, working on textile-treating agents and cellulose derivatives.  
 At California State Polytechnic College since 1946.
- HOWE, AGNES—A.B., M.S.**.....English  
 A.B., Albion College, 1923; M.S., Northwestern University, 1933; Completed additional graduate work toward doctorate at Northwestern University and Stanford University.  
 Experience: University of Iowa; University of Wisconsin; Albion College; Northwestern, summer sessions; Michigan State College; McKendree College; Eastern Washington College of Education; and Cedar Crest College; Part-time library work at Hoover War Library, Stanford University; Speech, English, and dramatics instructor, Castilleja Schools; Los Gatos Union High School.  
 At California State Polytechnic College since 1947.
- HOWES, WILBUR B.—B.A.**.....Head of Ornamental Horticulture Department  
 Non-degree work at University of California, Davis; Received B.A., Chico State College, 1930; Additional graduate study, University of Southern California and Cornell University.  
 Experience: Instructor in Agriculture, Los Angeles School System.  
 At California State Polytechnic College since 1932.
- HOYT, LYLE SAFLEY—B.S.**.....Animal Husbandry  
 B.S., Iowa State College, 1941; Additional graduate study, South Dakota State College.  
 Experience: County Club Agent and County Agricultural Agent in Iowa, 1942; Instructor Animal Husbandry Department, South Dakota State College; Served in U. S. Army as an officer, 1942-1945.  
 At California State Polytechnic College since 1946.
- JENSEN, JAMES J.—B.A., M.A.**.....Physical Education and Athletics  
 B.A., Washington State College, 1935; M.A., Stanford University, 1941.  
 Experience: Coach and instructor of social science, Shelton High School, Shelton, Washington, and Santa Rosa High School, Santa Rosa, California; coach and dormitory supervisor, Menlo Junior College, Menlo Park, California; coach of track and instructor in hygiene, San Francisco Junior College; officer in U. S. Navy.  
 At California State Polytechnic College since 1948.
- JOHNSTON, ROBERT M.—A.B.**.....Engineering Drafting  
 A.B. in Industrial Arts, Santa Barbara State College, 1937; Graduate of the Boeing School of Aeronautics in meteorology, 1938.  
 Experience: Taught meteorology and weather forecasting, preparation of weather maps, Randolph Officer Training School; Airline Meteorologist for Pan-American Airlines, 1941-1946.  
 At California State Polytechnic College since 1946.
- JORGENSEN, EDWARD J.—B.A.**.....Physical Education and Athletics  
 B.A., Chico State College, 1936; graduate work, San Jose State College and University of California.  
 Experience: Instructor of physical education and industrial arts, South Fork High School, Ferndale High School, and Watsonville High School; athletic director, Marin Junior College; officer in U. S. Navy.  
 At California State Polytechnic College since 1947.
- KATTENHORN, ALBERT E.—B.S.**.....Agricultural Mechanics  
 B.S., University of California at Davis, 1935.  
 Experience: Teacher in agriculture, Point Arena Union High School, Julian Union High School, and Escondido Union High School, California.  
 At California State Polytechnic College since 1948.

KENNEDY, ROBERT E.—A.B., M.A.-----Journalism and Publications

A.B., San Diego State College, 1938; M.A., Stanford University, 1949.

Experience: Publicity director, San Diego State College; reporter, *San Diego Sun*, Scripps-Howard paper; executive secretary and publicity manager, Civic Affairs Congress, San Diego; advertising manager, Hamilton's, Ltd., San Diego; reporter-photographer, *San Diego Daily Journal*; editorial staff, *Telegram-Tribune*, San Luis Obispo; reporter and radio news editor, *Palo Alto Times*, Palo Alto; instructor, communications and English, U. S. Naval Flight Preparatory School and Naval Academic Refresher Unit.

At California State Polytechnic College since 1940.

KENNELLY, BRUCE—B.S., M.A.-----Chemistry

B.S., University of Kentucky, 1944; M.S., Purdue University, 1946; additional graduate work, Purdue University.

Experience: Staff member, department of agricultural chemistry, Purdue University, 1944-1947.

At California State Polytechnic College since 1947.

KNOKEY, CHARLES R.—B.S.-----Air Conditioning and Refrigeration

B.S. in air conditioning and refrigeration engineering, California State Polytechnic College, 1947.

Experience: Completed aviation cadet training in 1941, and commissioned ensign in U. S. Naval Reserve; Served as officer in the U. S. Navy from 1941-1945.

At California State Polytechnic College since 1947.

\* LAMIMAN, JOHN F.—B.S., M.S., Ph.D.-----Agricultural Inspection and Entomology

B.S. in entomology, University of California, 1922; M.S. in entomology, University of California, 1924; Ph.D., in entomology, University of California, 1931.

Experience: Research Assistant, University of California, Entomologist in Experiment Station; Instructor at University of California.

At California State Polytechnic College since 1946.

LANDER, J. ROLLIN—B.S.-----Animal Husbandry

B.S., Iowa State College in animal husbandry, 1941, after having attended California Polytechnic.

Experience: Employed by Tudor Orchards, Yuba City; Frank Cornell Ranch, Salinas; Teacher of Veterans—Agricultural courses, Gonzales Union High School.

At California State Polytechnic College since 1946.

LEACH, RICHARD—B.S.-----Head of Poultry Husbandry Department

B.S., Montana State College, 1931.

Experience: Supervisor, feed sales agency for Sweet & Company, Bozeman, Montana; Manager and owner of commercial poultry plant, Bozeman, Montana.

At California State Polytechnic College since 1930.

LEARY, WILLIAM GORDON—A.B., M.A.-----English

A.B., 1936, and M.A., 1938, University of California at Los Angeles; additional graduate work at the University of Washington and the University of Chicago.

Experience: Teaching assistant, University of California at Los Angeles, 1936-37; Instructor of English, Kern County Union High School, Bakersfield, 1938-41; Instructor, University of Washington, 1941-42; U. S. Navy, 1942-45.

At California State Polytechnic College since 1947.

LEWIS, V. D.—A.B., M.A.-----Mathematics and Physics

A.B., 1933, and M.A., 1940, University of California. Additional graduate work University of California and University of Miami.

Experience: Served in U. S. Navy as an officer, 1943-1946. Science and mathematics instructor, Round Valley Union High School, 1934-1936; Principal, Round Valley Union High School, 1936-41; Principal Fort Bragg Senior High School, 1941-43.

At California State Polytechnic College since 1946.

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

LINDLEY, DEAN C.—B.S., M.S., D.V.M.—College Veterinarian and Veterinary Science  
B.S., Washington State College, 1944; M.S., Washington State College, 1945;  
D.V.M. from Washington State College in 1946.

Experience: U. S. Army; research assistant, Department of Animal Husbandry,  
Washington State College.

At California State Polytechnic College since 1946.

\*LINT, HAROLD L.—B.A., M.A.-----Biological Sciences

B.A., University of California at Los Angeles, 1940; M.A., University of California at Los Angeles, 1942.

Experience: Five years as inspector for U.S. Food and Drug Administration.

At California State Polytechnic College since 1947.

Longborg, Reynold H.—B.S.-----Truck Corps

B.S. in agriculture, University of California, 1932.

Experience: Instructor of Vocational Agriculture, Downey Union High School,  
Downey, California, 1934-1936; Director of Department of Vocational Agriculture at  
Santa Maria Union High School, Santa Maria, California, 1936-1946. Two years experience  
in vegetable production in the Santa Maria Valley.

At California State Polytechnic College since 1946.

LUCKSINGER, O. F.—B.S., M.S.-----Public Speaking and Agricultural Mathematics

B.S., University of California, 1916; M.S., University of California, 1927; additional  
graduate study, University of California.

Experience: U. S. Army, Medical Corps, World War I; Agricultural inspector,  
Lemoore Union High School; Director of Agriculture, Gonzales Union High School;  
Principal, Gonzales Evening High School.

At California State Polytechnic College since 1934.

McGrath, James—B.A.-----Guidance and Air Conditioning and Refrigeration

Attended California Polytechnic 1935-1938; received B.A., Santa Barbara State  
College, 1941; additional graduate work at Claremont College.

Experience: Steam Engineer, license unlimited 1935 to date; Lieutenant Commander,  
Engineering Officer; First Assistant Engineer, U. S. Army Transport S. S.  
YuSang; U. S. Army on Bataan. Extensive travel in Pacific area—Japan, China,  
Malay, Manchuria, Korea, Philippines, and Borneo.

At California State Polytechnic College since 1946.

\*McGrath, Thomas H.—B.A., M.A.-----Director of Student Activities, Psychology

B.A., Santa Barbara State College, 1941; M.A., Claremont Graduate School,  
1946; doctoral candidate, Claremont Graduate School.

Experience: Senior instructor, Air Force Instructors' Technical School, Chanute  
Field, Illinois; teacher of industrial arts, Los Angeles City Schools; graduate assistant  
in school administration, Claremont Graduate School; curriculum specialist, State  
Department of Education, Division of Secondary Education; instructor of psychology  
and dean of men, Mt. San Antonio College, visiting lecturer in Audio-Visual Education,  
Claremont Graduate School.

At California State Polytechnic College since 1949.

McInerney, James A.—A.B., M.A.-----Social Science

A.B., Clarke University, Worcester, Massachusetts, 1939; M.A., Clark University,  
1940.

Experience: Boys' Leader, Y.M.C.A., Worcester, Massachusetts; director social-  
recreation program, Connecticut Council of Churches; officer in U. S. Navy; teacher  
of social studies, director of athletics, Barre High School, Barre, Massachusetts.

At California State Polytechnic College since 1948.

McNeeley, George H.—H.S.-----Animal Husbandry

B.S., University of California at Davis, 1948.

Experience: Teaching assistant and reader, University of California at Davis;  
laborer, Flying Three Ranch, Walnut, California; officer in U. S. Army Air Corps.

At California State Polytechnic College since 1948.

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

MACKEY, JOHN WILLIAM—A.B., M.A.-----English  
 A.B., College of Wooster, Wooster, Ohio, 1940 ; M.A., Stanford University, 1943.  
 Experience : Huntley Project High School, Warden, Montana, 1940-41 ; Stanford University, 1943-45 ; California State Polytechnic College, 1945 ; University of Montana, 1945-46.

At California State Polytechnic College since 1947.

MARSTON, ENA LESLIE—B.A., M.A.-----English  
 B.A., Mills College, 1927 ; M.A., Mills College, 1928 ; M.A., Radcliffe College, 1931 ; additional graduate work at the Universities of California, Washington, and Chicago.

Experience : High school teaching at Abbot Academy, Andover, Massachusetts ; Concord Academy, Concord, Massachusetts. College teaching at St. Helen's Hall Junior College, Portland, Oregon ; Washington State College, Administration as Registrar at St. Helen's Hall Junior College ; Academic Dean of Linden Hall Junior College, Lititz, Pennsylvania.

At California State Polytechnic College since 1946.

MARTINSEN, M. C.-----Aeronautical Engineering  
 Graduate California Polytechnic, 1917, in Mechanics Engineering ; additional study, University of California at Los Angeles ; holds certificates issued by Civil Aeronautics Authority as Aircraft Pilot ; Aircraft and Engine Mechanic ; Ground and Mechanics School Instructor.

Experience : Travel South America, France ; U. S. Army Engineer, World War I ; electrician, Reynolds Electric Company, Santa Barbara, California ; steam engineer, Union Oil Company, Avila, California ; machinist, C. F. Brann Company, San Francisco, California ; shop foreman, Santa Barbara Motor Company ; owner and operator, Automotive Repair Business, Santa Barbara, California ; mechanic, Lockheed Aircraft Corporation, Burbank, California ; instructor, Navigation, U. S. Naval Flight Preparatory School.

At California State Polytechnic College since 1930.

MASTERS, WYATT B.-----Maintenance Engineering ; Carpentry  
 Experience : Carpenter for Fresno contractors, Fresno, California ; carpenter, U. S. Engineers, Hammer Field, Fresno ; instructor in woodshop and carpentry, Central Union High School, Fresno.

At California State Polytechnic College since 1948.

MATTHEW, THEODORE—A.B., Chem. Engr.-----Chemistry  
 A.B., University of California at Berkeley, 1922 ; Chem. Engr., Stanford University, 1930.

Experience : Playground director, Berkeley Recreation Department ; officer in U. S. Army Air Corps ; Americanization English for foreigners, Oakland Evening High School ; vice principal, Haight Elementary School, Alameda, California ; instructor in physics and chemistry, Richmond Union High School, Richmond, California ; director of civilian pilot training, San Mateo Junior College ; owner-operator and chemical engineer, Dried Fruit Specialties Company, San Francisco.

At California State Polytechnic College since 1948.

MAURER, ROBERT L.—A.B., M.A.-----English and Psychology  
 A.B., Western Reserve University, 1935 ; M.A., Western Reserve University, 1936.

Experience : Instructor of English, Ohio State University, Columbus, Ohio, and Oregon State College, Corvallis, Oregon ; instructor and training director in U. S. Air Force School ; instructor and academic supervisor, Army Military Intelligence Service ; teaching fellow in psychology, Ohio State University.

At California State Polytechnic College since 1948.

**MERSON, JAMES F.—B.A.**-----Head, Agricultural Engineering and  
Mechanics Department

Graduate San Jose State College, 1928; received B.A., San Jose State College, 1932; graduate work University of California at Davis.

Experience: Western Electric Company, Oakland; Instructor Agricultural Mechanics, Dos Palos High School; Instructor Agricultural Mechanics, Santa Rosa High School.

At California Polytechnic College since 1936.

**METZ, ROY F.**-----Aeronautical Engineering

Cass Technical School of Engineering, 1914; additional study various aircraft and engine companies including the Wright Aeronautical Corporation, Pratt and Whitney Corporation, United Air Lines; holds Civil Aeronautics Authority Aircraft and Engine certificate; Instructor, aero engines in the U. S. Naval Flight Preparatory School.

At California State Polytechnic College since 1937.

**MILHAM, FOREST KNEL—B.S.**-----Chemistry

B.S., University of Nebraska, 1937.

Experience: Research chemist, Certain Seed Production Corporation, Buffalo, New York, 1937-1938; Chief Chemist, Pratt Food Company, Buffalo, New York, 1938-1940; Chief Chemist, Albers Manufacturing Company, Oakland, California, 1940-1942; U. S. Army, 1942-1946.

At California State Polytechnic College since 1947.

**MOORE, CARL A.—B.S., M.S.**-----Air Conditioning and Refrigeration

B.S., University of Colorado, 1938; M.S., California Institute of Technology, 1940.

Experience: Engineer, Lockheed Aircraft Corporation, Burbank, California; laboratory assistant in Meteorology, California Institute of Technology; ground school supervisor, Cal Aero Academy, Oxnard, California; extension division meteorology instructor, University of California at Los Angeles; officer in U. S. Army Air Forces Weather Service; technical assistant, Southern California Gas Company, Los Angeles; construction superintendent, William E. Angold, realtor-builder, Pasadena.

At California State Polytechnic College since 1948.

**\*MORAN, GABRIEL T.—B.A.**-----Chemistry

B.A., Whittier College, California, 1942.

Experience: Chemist at American Potash and Chemical Company, Trona, California; Thompson Products, Bell, California; Paul Dickerson, Chemistry Laboratory; District Agricultural Laboratory, Whittier, California.

At California State Polytechnic College since 1948.

**MOTT, ROBERT A.—B.S., M.A.**-----Department Head, Physical  
Education and Athletics

B.S., University of Akron, 1939; additional graduate work, University of Michigan and University of Akron; M. A., University of Southern California.

Experience: Physical education instructor and athletic coach at B. F. Goodrich School, Akron; Coach at Akron West High School; served in the U. S. Navy as athletic officer, 1942-1946.

At California State Polytechnic College since 1946.

**NEEDHAM, ROBERT A.—B.S.**-----Aeronautical Engineering

B.S., Oregon State College, 1946.

Experience: Inspector, North American Aviation Corporation, Inglewood; stress engineer, Boeing Aircraft Co., Seattle, Washington; stress engineer, North American Aviation, Inglewood.

At California State Polytechnic College since 1949.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

NERESON, OBERLIN B.—B.A., M.A.-----Director of Guidance

B.A., Luther College, 1927; graduate work at Northwestern University, 1930; M.A., University of Minnesota, 1939; additional graduate work at University of Southern California.

Experience: Teacher and principal at Barnesville High School, Barnesville, Minnesota, 1927-1930; Principal of High School, Pelican Rapids, Minnesota, 1930-1938; Superintendent of Schools, Barrett, Minnesota, 1938-1939; Principal of High School, Alexandria, Minnesota, 1939-1943; Instructor in psychology, Visalia College, Visalia, California, 1946-1947; Personnel officer at U. S. Navy Receiving Station, Terminal Island, Naval Air Base, Tinian, and U. S. Naval Air Base, Guam, 1943-1946.

At California State Polytechnic College since 1947.

NOBLE, GLENN A.—A.B., M.A., Ph.D.-----Acting Head of Biological Sciences Department

A.B., University of California, 1931; M.A., University of California, 1933; Ph.D., Stanford University, 1940.

Experience: Assistant in zoology, College of Pacific, 1933-1935; Instructor, Department Head, San Francisco Junior College, 1935-1946; Consultant in biology, American Military Government in Korea, 1946-1947.

At California State Polytechnic College since 1947.

O'DANIELS, HOWARD R.—B.C.S.-----Social Science

Bachelor of Commercial Science, University of Santa Clara, 1931; additional graduate study, University of Southern California.

Experience: Director of physical education, Mission High School, San Luis Obispo, California; at California Polytechnic School as coach, 1933-1942; Served in U. S. Navy as an officer, 1942-1945.

Returned to California State Polytechnic College in 1945.

PARKER, HARRY-----Animal Husbandry

Graduate Kent College, Canterbury, England, 1918; attended Kingston Agricultural College, Leicestershire County, England, 1918-1920.

Experience: Herdsman, Edward Best Shorthorn Ranch, Mount Vernon, New Hampshire; C. A. Smith Hereford Ranch, Chester, West Virginia; Peter Ross Shorthorn Ranch, Danville, Illinois; William Briggs Hereford Ranch, Dixon, California.

At California State Polytechnic College since 1932.

PARSONS, M. RAY—B.S.-----Agricultural Engineering

B.S. in agriculture, North Dakota Agricultural College, 1942, and B.S. in Agricultural Engineering at North Dakota Agricultural College, 1946.

Experience: Farmed in North Dakota two years; Instructor in the Department of Correspondence Study at the North Dakota Agricultural College, courses in mathematics and mechanics; L. B. Hanna Stock Farm in North Dakota for two years; employed by highway and airport construction companies; served in the U. S. Army, 1942-1945; part-time extension in Agricultural Engineering, North Dakota Agricultural College.

At California State Polytechnic College since 1946.

PAVELKO, CHARLES A.—B.A.-----Physical Education and Athletics

Attended Santa Clara University, 1935-1938; received B.A. in Physical Education from Whittier College in 1941.

Experience: California State Polytechnic College for one year, 1941-1942; served in the U. S. Navy as athletic officer, 1942-1945.

Returned to California State Polytechnic College in 1946.

\*PEAVEY, GEORGE J.—A.B., A.M.-----English

A.B., University of Denver, 1924; A.M., University of Hawaii, 1931; additional work at University of Southern California and Stanford University.

Experience: Instructor of English and Speech at Crested Butte High School, (Colorado); Hawaii Public Schools, University of Hawaii, and Stanford University; Head of Department of English at Poston School, Poston, Arizona; at California State Polytechnic School as English instructor in Naval Academic Refresher Unit, 1945.

Returned to California State Polytechnic College in 1946.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.



PENDLETON, PAUL E.—A.M., Ph.D.-----Acting Chairman of English Department  
A.M., University of Nebraska, 1922; Ph.D., Ohio State University in English,  
1941.

Experience: Teacher, Lincoln Senior High School, Lincoln, Nebraska; Instructor, University of Nebraska, Lincoln, Nebraska; Assistant Professor Westminster College, New Wilmington, Pennsylvania; Otterbein College, Westerville, Ohio; Lecturer at the University of Southern California, Los Angeles; officer in the U. S. Army Air Forces, 1943-1946.

At California State Polytechnic College since 1946.

\* PENLEY, LAVINA-----Librarian

Experience: Assistant librarian, Pomona Public Library; acting librarian, Upland Public Library; assistant librarian, Pomona High School; librarian, Emerson Junior High School, Pomona.

At California State Polytechnic College since 1946.

\* PETERS, GEORGE D.—B.S.-----Citrus Fruit Production

B.S., Oregon Statet College, 1943.

Experience: Citrus fruit production, Ventura County, California.

At California State Polytechnic College since 1948.

PETERSON, GERALD B.-----Electronic and Radio Engineering

Experience: Eight years as independent radio service man; radio operator, WHA radio station, University of Wisconsin; officer, instructor in radio and sound, in U. S. Navy.

At California State Polytechnic College since 1947.

PORTER, MARIE E.—A.B.-----Mathematics

A.B. in mathematics and chemistry, Stanford University, 1935; graduate work in mathematics and sciences at Stanford University.

Experience: High school teaching, including experience in Alameda High School; Grant Union High School and Junior College, North Sacramento; U. S. Naval Flight Preparatory School, California Polytechnic; Naval Academic Refresher Unit, California State Polytechnic School.

At California State Polytechnic College since 1946.

PRIESTLEY, RALPH B.—B.S.-----Architectural Engineering

B.S., University of Illinois, 1936.

Experience: Architectural draftsman, Harford Field, Architect, Chicago; general architectural work, Joe H. Wildermuth, Architect, Chicago; superintendent of buildings, Cuneo Press Inc., Chicago; five years in private architectural practice, Chicago.

At California State Polytechnic College since 1948.

PURSEL, CLAUDE A.—A.B., M.A.-----Mathematics

A.B., Hastings College, Hastings, Nebraska, 1935; M.A., University of Southern California, 1947.

Experience: Instructor of mathematics, physics, and Superintendent of Public Schools, Lushton, Nebraska, 1935-1945; teaching assistant in mathematics department, University of Southern California, 1945-1947.

At California State Polytechnic College since 1947.

RADIUS, CLARENCE—B.S.-----Head of Electronic and Radio Engineering Department

B.S., University of Chicago, 1932; Graduate work in electron physics, University of Chicago; Graduate work in communications engineering at Stevens Institute of Technology, New Jersey.

Experience: Instructor in physics at the Chicago Junior College; Engineer at Chicago Apparatus Company; Instructor in radio frequency engineering at RCA Institutes, Chicago; Head of the department of audio-video technology at RCA Institutes, New York; Engineer at Radiomarine Corporation of America, New York; Lecturer in television for National Broadcasting Company in New York, Chicago, and Hollywood.

At California State Polytechnic College since 1946.

\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

REECE, ROBERT HOWELL—B.S.-----Mechanical Engineering  
B.S. in mechanical engineering, University of Illinois, 1920.

Experience: Employed as steel plate work estimator with Joseph T. Ryerson & Son, Chicago; employed by Illinois Engineering Company in connection with mechanical equipment of power plants, railroad round houses; City of Chicago in connection with water filter plant; and with Skidmore, Owings and Merrill, Architects and Engineers, in Chicago and New York; served in the U. S. Navy as an officer, 1942-1945; and with Wurdeman and Becket, Architects and Engineers, as mechanical engineer, Los Angeles, California.

At California State Polytechnic College since 1946.

REMUND, CLIVE—B.S.-----Agricultural Engineering  
B.S. in agriculture at Utah Agricultural College, 1931.

Experience: Seven years teaching experience Utah high schools; Director of Vocational Agriculture and Critic Teacher at Elk Grove Union High School, California; Director of Vocational Agriculture and Cadet Teacher, Paso Robles Union High School.

At California State Polytechnic College since 1946.

RICHARDS, C. C.—B.A.-----Machine Shop  
B.A., Santa Barbara State College, 1942.

Experience: Extensive experience in industrial plant construction work and machinery installation with O. C. Fields Gasoline Corporation; Served in U. S. Navy, 1942-1945.

At California State Polytechnic College since 1946.

RICKANSRUD, TORLEIF M.—B.A., M.S.-----Physics and Mathematics  
B.A., Luther College, Decorah, Iowa, 1922; M.S., Iowa State College, 1940; additional graduate work, University of St. Louis, 1942-1943.

Experience: Superintendent of Schools and Director of Science Department at Rolla Public Schools, Rolla, N. Dakota; Superintendent of Schools and Director of Science Department Omemee Public Schools, Omemee, N. Dakota; Superintendent of Schools and Director of Science Department at Lansing Public Schools, Lansing, Iowa; Electronics Instructor in Advanced Radar School, Truax Field, Madison, Wisconsin, 1943; Instructor, mathematics and physics in U. S. Naval Flight Preparatory School and the Naval Academic Refresher Unit. Holds Civil Service rating as radio engineer.

At California State Polytechnic College since 1943.

RICHARDSON, JOY O.—B.S., M. of Engr.-----Mechanical Engineering  
B.S., University of Nebraska, 1940; M. of Engr., Yale University, 1942.

Experience: Instructor, Yale University, New Haven Junior College, New Haven, Connecticut; instructor, Orland High School, Orland, California; machine designer, Rockbestos Products Corporation; engineer, Marlin Firearms Company, Bristol Aeronautical Corporation, New Haven, Connecticut; engineer, Johns Manville Corporation, Tilton, New Hampshire; vice president and treasurer, Richardson Industries, Incorporated, East Haven, Connecticut.

At California State Polytechnic College since 1948.

RICKER, WILLIAM E.—B.A., M.S.-----Architectural Engineering  
B.A., Ohio State University, 1938; M.S., Cornell University, 1940.

Experience: Nine years as draftsman and architect for contractors and architects in Columbus, Ohio, and Portland, Oregon; architectural designer, Prack and Prack, Texas and Pennsylvania; industrial artist, Curtis Wright Corporation, Columbus.

At California State Polytechnic College since 1948.

**RIEBEL, JOHN P.—B.S., B.A., M.A.**-----English  
 B.S., University of Kentucky, 1924; B.A., University of Southern California, 1927; M.A., University of Southern California, 1928; additional graduate work, University of Illinois.

Experience: Instructor in English, Georgia School of Technology; assistant in English, University of Illinois; acting head of English department, Austin Peay Normal, Clarksville, Tennessee; editor and author, L. W. Singer Co., Syracuse, New York; nine years as instructor in charge of composition, General Motors Institute; instructor, University of Detroit Evening College of Commerce; editor and assistant manager of customer relations, Cadillac Motor Car Division, Detroit.

At California State Polytechnic College since 1947.

**RONEY, ELLIS L.—B.S., M.S.**-----Radio and Electronics  
 B.S., Stanford University, 1947; M.S., Stanford University, 1948.

Experience: One and one-half years as an instructor in junior colleges of California; owner, Ellis L. Roney Radio Service in Modesto, California; test engineer, Hewlett-Packard Company, Palo Alto, California; teaching assistant and Loran Research, Stanford University.

At California State Polytechnic College since 1948.

**SANKOFF, LEO—B.S.**-----Poultry and Agricultural Engineering  
 B.S., California Polytechnic, 1942.

Experience: Director of Agriculture, Fillmore High School.

At California State Polytechnic College since 1946.

**SHARPE, NORMAN—B.A., M.A.**-----Head of Air Conditioning and Refrigeration  
 Engineering Department  
 B.A., University of California at Los Angeles, 1929; M.A., University of Southern California, 1939.

Experience: Research Engineer, Carrier Engineering Corporation, Newark, New Jersey, 1930; Design Engineer, Carrier Engineering Corporation; physics and mathematics Instructor, Los Angeles City Schools; Design and Construction Engineer, Luppen and Hawley.

At California State Polytechnic College since 1937.

**SHEPHERD, LOUIS P.—B.S., A.M.**-----English  
 B.S., Kansas State Teachers College, 1941; A.M., Columbia University, 1945; Additional graduate work toward Ph.D. completed at Stanford University.

Experience: Instructor in English, speech, dramatics, Spanish, at Norwich, Kansas, High School; Grace Church School, and McBurney Preparatory School, New York City, 1941-1945; Instructor in English, Oregon State College, 1945-1946; Instructor in English, Stanford University, 1946-1947.

At California State Polytechnic College since 1947.

**SHESLER, FRANKLIN B.—B.A., M.S.**-----Air Conditioning and Refrigeration  
 B.A., Santa Barbara State College, 1942; M.S., Oregon State College, 1947.

Experience: Officer in U. S. Navy; instructor in machine shop, Santa Barbara College.

At California State Polytechnic College since 1947.

**SIMONETTE, MELVIN G.**-----Maintenance Engineering and Painting

Experience: Eight years in San Francisco as an apprentice painter, painter, painting foreman, and superintendent; instructor of painting and decorating for Samuel Gompers Trade School; instructor and operator in synthetic paint equipment; U. S. Army Air Corps.

At California State Polytechnic College since 1948.

**SMITH, JAMES STEELE—B.A., M.A.**-----English  
 B.A. in English, University of California, 1934; M.A. in English, University of California, 1936; Additional graduate work at the University of California.

Experience: Instructor, University High School, Berkeley, and Red Bluff Union High Schools; Teaching fellow, University of California; Instructor, University of California, Davis; U. S. Army; Instructor, Washington State College; Professional writing.

At California State Polytechnic College since 1946.

SMITH, MORRIS EUGENE—A.B., M.A.-----Political Science and History

A.B. in political science and history, University of California, 1934; M.A. in political science and English, 1937; Additional graduate work at the University of California.

Experience: Five years Piedmont High School English instructor and tennis coach; Served in U. S. Army as Intelligence Officer, 1942-1946.

At California State Polytechnic College since 1946.

ST. CLAIR, JAMES S.—B.S., M.S.-----Economics and Agricultural Economics

B.S., University of California, 1939; M.S., University of Illinois, 1947.

Experience; Research assistant in Agricultural Prices and Statistics, University of Illinois; In the Service of U. S. Army, 1942-1945.

At California State Polytechnic College since 1946.

STEELE, ROBERT L.—B.A., M.A.-----Physical Education

B.A., San Jose State College, 1947; M.A., Stanford University, 1948.

Experience: Coach of football, Abraham Lincoln High School, San Jose, California; physical instructor in U. S. Army Air Corps.

At California State Polytechnic College since 1948.

STEINER, ERNEST ALFRED-----Security Officer and Instructor in  
Fire and Accident Prevention

Experience: Fire Engineer, Long Beach Fire Department, 1923-1943; Fire protection, fire prevention, and general security officer, U. S. Navy, 1943-1946.

At California State Polytechnic College since 1947.

STERLING, WALTER V.—B.S.-----Electronic and Radio Engineering

B.S., Northwestern University, 1948; graduate study at Stanford University, 1949.

Experience: Experimental machinist, Wright Aeronautic Corporation, Paterson, New Jersey; tool maker, Electro-Motive Corporation, LaGrange, Illinois; tool making supervisor, Park Ridge, Illinois; research assistant, Northwestern University; research assistant, Stanford University.

At California State Polytechnic College since 1949.

STEUCK, FRED HENRY—B.S.-----Electrical Engineering

B.S. in electrical engineering, Iowa State College, 1937.

Experience: Assistant engineer, Nebraska Power Company, Omaha, 1937-1938; Manager, O'Brien Company Rural Electrification Corporation, 1938-1942; Radar officer, U. S. Naval Reserve, 1944-1946; Electrical Instructor, U. S. Naval Training School, Iowa State College, 1942-1944; Engineer, Silent Sioux Burner Corporation, Orange City, Iowa, 1946.

At California State Polytechnic College since 1947.

STEVENSON, FRANK V.—B.A., M.S.-----Plant Pathology and Biological Sciences

B.A., University of Maryland, 1939; M.S., University of Minnesota in botany, 1944; Additional graduate work toward Ph.D.

Experience: Graduate assistant, University of Maryland, 1940-1941; Research assistant, Michigan State College, 1941-1943; Instructor and research assistant, University of Minnesota, 1943-1946; Agricultural experiment station, Washington State College, 1946-1947.

At California State Polytechnic College since 1947.

STICKLER, CARLYLE R.—B.S.-----Assistant Reference Librarian

B.S., Cornell University, 1944; B.S. in L. S., Columbia University, 1948.

Experience: Reporter, Dun and Bradstreet, Chicago, Illinois; assistant, Cornell University Library; cataloger, Morningside School, New York City.

At California State Polytechnic College since 1948.

\* STULL, ROBERT B.—A.B., M.A.-----Physical Education and Athletics  
A.B., Whittier College, 1941; M.A., Whittier College, 1947.

Experience: Coached basketball, Whittier College; graduate manager, Whittier College; instructor, physical education and political science, Montebello High School, Montebello, California, and at Valencia High School, Placentia, California; served as officer in U. S. Navy for four years.

At California State Polytechnic College since 1947.

THOMSON, DAVID H.—B.S.-----Biological Sciences  
B.S., University of Arizona in education and zoology; additional work in biology, Claremont College.

Experience: Laboratory instructor, Pomona College.

At California State Polytechnic College since 1946.

TURNER, ALDEN L.-----Aeronautical Engineering  
Graduate of California State Polytechnic College, 1936.

Experience: United Air Service, Ltd.; Stearman Aircraft; Lockheed Aircraft; Hancock College of Aeronautics at Santa Maria; served as an officer U. S. Air Forces, 1941-1946.

At California State Polytechnic College since 1946.

VAN EPPS, GORDON A.—B.S., M.S.-----Field and Truck Crops  
B.S., Utah State Agricultural College, 1942; M.S., Utah State Agricultural College, 1948.

Experience: Graduate assistantship, experimental and teaching, Utah State Agricultural College; soil scientist, Bureau of Reclamation, Salt Lake City; subforeman, Western Seed Production Corporation, Phoenix; officer, U. S. Navy.

At California State Polytechnic College since 1948.

VAN NEST, ISAAC G.-----Air Conditioning and Refrigeration

Experience: 28 years as engineer in Los Angeles; Cudahy Packing Company, Pioneer Paper Company, National Ice Company, Methodist Hospital, Orthopaedic Hospital, Globe Ice Cream Company, Automobile Club of Southern California; ammonia pipe fitter and supplies salesman for various contractors and engineers for five years; air conditioning and refrigeration instructor for five years in U. S. Marine Corps and U. S. Navy; chief engineer, Cottage Hospital, Santa Barbara, California, for five years.

At California State Polytechnic College since 1948.

VORHIES, RALPH M.—B.S., A.M.-----Crops  
B.S. in agriculture, University of Missouri, 1938; A.M. in horticulture, University of Missouri, 1941.

Experience: High School teacher of vocational agriculture at Belton, Missouri; Instructor Southeast State Teachers College; Instructor Cape Girardeau, Missouri; served in U. S. Navy as an officer from 1942-1946.

At California State Polytechnic College since 1946.

WADE, KENNETH E.—B.S.-----Soils  
B.S., University of Idaho, 1937; graduate work, Washington State College.

Experience: Nine years as agronomist and soil conservationist, Soil Conservation Service, U. S. Department of Agriculture.

At California State Polytechnic College since 1947.

WALLACE, ROBERT—B.S.-----Agricultural Engineering  
B.S., University of California College of Agriculture, 1939.

Experience: Building superintendent for the Federal Government in laying out buildings and supervising their construction, 1939-1942; completed requirements for credential in vocational agriculture in 1942; instructor of vocational agriculture, Orland Joint Union High School, 1942-1947.

At California State Polytechnic College since 1947.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.

**WATSON, KENNETH JOSEPH—A.B.**-----Electronic and Radio Engineering  
A.A. in radio engineering, San Jose Junior College, 1939; A.B. in industrial education, San Jose State College, 1941; completed additional graduate work at San Jose State College, 1946.

Experience: Radar operator, mechanic, and radar officer, U. S. Army, 1941-1946.  
At California State Polytechnic College since 1947.

**\*WEEKS, LOWELL K.—B.A.**-----Music and English  
B.A., University of New Mexico, 1938; graduate work, University of New Mexico and University of Southern California.

Experience: Instructor in Music and English, Los Lunas High School, Los Lunas, New Mexico; U. S. Army.  
At California State Polytechnic College since 1947.

**\*WELCH, HARRY V., JR.—B.S.**-----Soils  
B.S., University of California at Los Angeles, 1941; additional study, University of Hawaii.

Experience: University of California Citrus Experiment Station, Riverside; Farm Security Administration.  
At California State Polytechnic College since 1947.

**WESTON, RALPH E.—A.B., M.A.**-----Mathematics  
A.B., Stanford University, 1922; M.A., Stanford University, 1933.

Experience: 19 years mathematics teacher in the secondary schools of California; electrical engineer, P G & E, San Francisco; visiting professor of mathematics, University of Idaho; visiting associate professor, University of Southern California, Santa Maria; engineering aide, U. S. Engineers, Sacramento.  
At California State Polytechnic College since 1948.

**\*WHITEHEAD, DUANE B.—B.S.**-----Agricultural Mathematics  
B.S., University of Southern California, 1947.

Experience: Teacher of physical education, Covina Union High School, Covina, California; Instructor in physical education, U. S. Marine Corps; operation and repair of citrus culture farm machinery, La Verne, California; operator of orchard heating equipment, La Verne.

At California State Polytechnic College since 1948.

**WHITING, F. F.—B.S., M.A.**-----Machine Shop  
B.S. in industrial education, Stout Institute, Menomonie, Wisconsin, 1931; M.A., University of Minnesota, 1938.

Experience: Teacher, metalwork, Eau Claire, Wisconsin; Junior High School and Marshall Senior High School, Minneapolis, Minnesota. Summer session instructor in metal work, University of Ohio; University of Minnesota, 1942-44. Served in the U. S. Navy as an officer, 1944-46.

At California State Polytechnic College since 1946.

**WHITSON, MILO E.—Ph.B., M.A., Ed.D.**-----Head of Mathematics Department

Ph.B., Washburn College, Topeka, Kansas; M.A., George Peabody College for Teachers; Ed.D., University of Southern California, 1949.

Experience: Seven years in elementary schools in Kansas; seven years in junior high schools, including teaching in mathematics, literature, and physical education, and Principal, Topeka Junior High School; officer in U. S. Navy; instructor mathematics at University of Southern California.

At California State Polytechnic College since 1947.

**\* WITTENBERG, DAVE—B.S.**-----Agricultural Economics  
B.S., University of California, 1942; additional graduate study at University of California.

Experience: Director of Vocational Agriculture, Templeton Union High School, and Antelope Valley Union High School, Lancaster.

At California State Polytechnic College since 1947.

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\* Located at the Voorhis Unit of California State Polytechnic College at San Dimas, California.



WILEY, RICHARD C.-----Welding

Special engineering courses at Stanford University; Industrial Arts training, San Jose State College and University of California.

Experience: Seven years master mechanic and welder, Utah Construction Company; trade experience with Eaton and Smith, contracting engineers; utilities department of the city of Palo Alto; two and one-half years War Production training instructor in welding, Sacramento Junior College, Palo Alto, and San Francisco school systems; instructor in welding, Leland Vocational Evening High School; senior welding engineer, Joshua Hendy Iron Works, Sunnyvale, California.

At California State Polytechnic College since 1946.

WOLF, HARRY K.—B.S., M.A.-----Electronic and Radio Engineering

California Polytechnic, 1927-29; received B.A., Arizona State Teachers College, Flagstaff, 1933; M.A., University of Arizona, 1941; additional graduate study at the University of California and University of Arizona.

Experience: Supervisor for Agricultural Adjustment Administration; instructor of mathematics and science, Camp Verde High School, Camp Verde, Arizona; head of mathematics department, El Dorado County High School, Placerville, California; U. S. Army Signal Corps training program instructor; instructor, navigation in the U. S. Naval Flight Preparatory School and mathematics and physics in the Naval Academic Refresher Unit.

At California State Polytechnic College since 1942.

WRIGHT, DOROTHY S.—A.B.-----Assistant Librarian

A.B. in philosophy and English, Occidental College; graduate work at University of California; received certificate from University of California School of Librarianship.

Experience: Pasadena Public School Library; Long Beach School Libraries; Occidental College Library.

At California State Polytechnic College since 1946.

ZILKA, THOMAS J.—B.S., M.S.-----Head, Mechanical Engineering Department

B.S., Oregon State College, 1941; M.S., Oregon State College, 1943.

Experience: Instructor in mechanical and aeronautical engineering, Oregon State College; assistant airworthiness requirements engineer, Boeing Aircraft Co.; assistant professor in aeronautical engineering, Montana State College.

At California State Polytechnic College since 1947.

## THE STATE BUREAU OF AGRICULTURAL EDUCATION

The State Bureau of Agricultural Education is a division of the State Department of Education, with headquarters at California State Polytechnic College. The bureau is in charge of all vocational agriculture instruction in the State. Because the principle bureau offices are located on the campus, and because the college and its staff participate actively in In-Service training for vocational agriculture teachers, California State Polytechnic College is considered the "headquarters" for vocational agriculture in California.

Members of the bureau staff are well-informed on activities of the college, and are always willing to discuss the college with prospective students. The State Bureau of Agricultural Education staff directory is listed below:

### DIRECTORY STATE BUREAU OF AGRICULTURAL EDUCATION

#### Headquarters at California State Polytechnic College

B. J. McMAHON, Chief of Bureau-----California Polytechnic, San Luis Obispo  
GEORGE P. COUPER, Assistant to the Chief----California Polytechnic, San Luis Obispo  
H. H. BURLINGHAM, Teacher-Trainer-----California Polytechnic, San Luis Obispo  
H. F. CHAPPELL, Regional Supervisor-----Library and Courts Building, Sacramento  
K. B. CUTLER, Regional Supervisor-----907 California State Building, Los Angeles  
B. R. DENBIGH, Regional Supervisor-----907 California State Building, Los Angeles  
E. W. EVERETT, Supervisor Veterans Training----Natural Science Building, San Jose  
State College, San Jose  
G. A. HUTCHINGS, Regional Supervisor-----California Polytechnic, San Luis Obispo  
J. D. LAWSON, Special Supervisor-----California Polytechnic, San Luis Obispo  
M. K. LUTHER, Regional Supervisor-----San Jose State College, San Jose  
W. J. MAYNARD, Special Supervisor-----San Jose State College, San Jose  
R. H. PEDERSEN, Regional Supervisor-----Fresno State College, Fresno  
A. G. RINN, Regional Supervisor-----Fresno State College, Fresno  
S. S. SUTHERLAND, Teacher-Trainer-----University of California, Davis  
J. I. THOMPSON, Livestock Specialist-----California Polytechnic, San Luis Obispo  
J. EVERETT WALKER, Regional Supervisor-----208 Sowillenn Building, Chico

## **GENERAL INFORMATION \***

### **THE COLLEGE PLANT**

#### **Lands**

The lands of the California State Polytechnic College total about 2,233 acres, of which 2,076 acres are embraced in the home unit at San Luis Obispo, and 157 acres in the Voorhis Unit at San Dimas.

Because the curricula of the California State Polytechnic College are primarily concerned with teaching production practices and skills, the availability of good farm land is a major factor. A different type of land is needed for each major agricultural field ; pasture and range for beef cattle, dairy cattle, sheep and swine ; range for poultry, hay and alfalfa land ; and irrigable land for truck and field crops. Orchard land must be climatically situated as to frost and sunshine.

While additions must eventually be made to round out this land need as student enrollment increases, in order to give each student as much opportunity as possible for actual project operation, the present properties are in the main satisfactory and diversified. Good drainage throughout makes flood damage impossible in the heaviest rainfall. Both branches are located in thermal belts.

There are several hundred acres at San Luis Obispo suitable only for range purposes. Other land is devoted to hay, alfalfa, and orchard. The major campus with land immediately surrounding various buildings now requires about 100 acres.

At San Dimas, about 30 acres of the land utilized for citrus, avocados, and a small deciduous tract, are well adapted to these uses. Some additional acres may be utilized for further deciduous plantings. Considerable land is now in the rough state, suitable for expansion. (All information regarding facilities, buildings, general information, curriculum, and course descriptions at the Voorhis Unit will be found listed under the Voorhis Division of the catalog.)

#### **Buildings**

Buildings on the campus and farm include the general structures for dormitory, classroom and administration use, and the headquarters for the major departments.

#### **Dormitories**

The San Luis Obispo campus has four main dormitory buildings, a unit of five dormitories, a four-wing resident unit with adjoining recreational hall, and two groups of cottages. The four main buildings house about 275 students, the dormitories house 250 students, and the resident unit will accommodate another 250 students. The two cottage groups each contain three buildings housing 12 students, making a total of 72 men living in these home-like structures, which are located adjacent to agricultural production units for the convenience of the students who assist in the operation of these agricultural units.

#### **Cafeterias**

Two cafeterias, both serving three meals per day, seven days per week, and capable of accommodating a total of 2,000 students per meal, are located on the campus. Cafeteria No. 1 is located near the main dormitory group, and Cafeteria No. 2 is located adjacent to the dormitory housing units. Meals are sold to students on meal tickets or separately.

#### **Health Center**

A 16-bed infirmary with a completely equipped examination and treatment room is located on the campus near the dormitory units. Two full-time nurses and two student assistants make it possible to give 24-hour medical service to students. A physician is in attendance daily five days per week and on call at all times.

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\* See also Voorhis Unit section.

**Veterans' Village**

For married veterans the college has provided a "village" consisting of 75 movable houses and 238 trailers located on the campus. Of the 75 movable houses, 38 are three-room units with two bedrooms, kitchenette, bath, and living room; 37 are two-room units with bedroom, living room combined with kitchenette, and bath. The trailers are constructed along conventional lines. The "Veterans' Village" is now completely landscaped, has central wash rooms with electric washing machines, and all modern conveniences. Milk and poultry products, as well as fruit and truck crops, can be purchased by resident families at the campus sales stores of these departments.

To help alleviate the housing shortage problem facing new instructors, the college brought in five four-apartment units in the fall of 1946 to house 20 faculty families.

**Athletic Facilities**

Most recent addition to the college's physical education facilities is the new \$60,000 athletic field, which was dedicated May 3, 1947. The new field includes a regulation quarter-mile track with a 220-yard straightaway, a new practice football field, a regulation baseball diamond with the shortest foul line extending 320 feet from home plate. The new athletic plant, completely enclosed by a wire fence, covers an area of 10 acres, includes an outdoor basketball court, and will include two more tennis courts. A new field house is adjacent to the ball park and provides locker and shower facilities for 200 men.

The college's gymnasium has been enlarged to accommodate some 1,200 spectators and to provide additional floor space for boxing, gymnastics, fencing, wrestling, badminton, and other minor sports. The gymnasium has two separate locker rooms with modern shower rooms. One is adjacent to the adjoining indoor swimming pool, which is 75 feet long and 35 feet wide. The pool is complete with heating, filtration and chlorinating equipment and has a spectator gallery which will seat 300 persons.

Close to the gymnasium is the football field with permanent grandstand and bleachers seating about 6,000 persons. The field is adequately lighted for night games. Nearby are tennis courts for both varsity and general student participation.

**Classroom and Administration Building**

In keeping with the progress of the California State Polytechnic, a new Classroom and Administration Building was constructed in 1941-42. This new unit with its 52,000 square feet of floor space occupies a commanding position north of the gymnasium. The building is of Spanish design, with a tile roof and a clock tower at the northwest corner. The upper story accommodates large lecture classes, while the ground floor houses the administrative offices of the school and the Bureau of Agricultural Education, the accounting office, the registrar's office, and faculty offices. In the basement are housed the print shop, with bindery, publications offices, mimeograph room, and student store.

**Library**

Other major buildings are devoted to the library, classrooms, and general laboratories. The Walter F. Dexter Library, completed in 1949, seats 400 students in the reading rooms. It also provides four floors of stacks, film darkrooms, seminar and visual education rooms. Another is the Agricultural Education building, while the others are one-story units in the center of the campus, providing space for physical and biological science, music, landscape drafting, mathematics, and similar courses.

In addition to the permanent buildings, forty 20x48 foot temporary buildings have been moved onto the campus for classroom and laboratory purposes. Twenty of these units are equipped for use as classrooms. The remaining units are distributed over the campus in connection with existing laboratories and are used as laboratories and shops in the various departments.

Well distributed over the campus and farm are the major structures devoted to agricultural instruction. These include the following:

**AGRICULTURAL INSTRUCTION BUILDINGS****Swine Unit**

This consists of a central farrowing house, and more than 30 double colony houses and pens for feeder pigs, brood sows, and boars. The plant is under the supervision of an instructor and a student assistant; while many meat animal students have either self-owned swine projects or responsibilities in connection with the college herd.

**Beef Unit**

The beef unit consists of two widely separated plants. Newer of them is the beef feeding unit, consisting of two feeding wings and a central feed storage unit. This

accommodates about 150 steers, fed out annually in student projects. A central enclosed court provides excellent facilities for judging and other instruction, training in showmanship, and project supervision. The other building is a calving and feed storage barn at the northwest corner of the farm, for the foundation herd.

**Central Feed Processing and Storage Plant**

A feed processing building, 60x60 feet, was built in 1947 and is used extensively by students in grinding, mixing, and preparing feeds for livestock projects on the campus. In addition to the processing building, the plant includes eight storage tanks, 21 x 18 x 6 feet, which makes it possible to purchase and store one full year's supply of grain.

**Sheep Unit**

One of the more recent major agricultural buildings is located just north of the main campus, and provides permanent facilities for lambing, feed storage, and lamb feeding projects. The climate of San Luis Obispo is well adapted to sheep production and instruction in sheep husbandry.

**Dairy Unit**

The dairy unit consists of a large feeding barn, a milking barn and bottling plant, a calf barn, and a bull barn with welded steel pipe corrals and pens. All of these structures are located adjacent to each other along one campus road, giving a compact unit for instruction in dairy husbandry. A dairy building, 40x100 feet, with space for judging dairy cattle was added during 1946-47.

**Poultry Unit**

The poultry unit includes a central egg house and incubation building, also utilized for feed storage; a number of houses for egg-laying, brooding, trapnesting, and similar work. A number of range colony houses are also provided.

To facilitate the project program in which each Poultry Department student cooperates, a sales office and egg candling building was constructed and put into use in the fall of 1940. Construction was completed in 1947 on an addition to the Egg Processing and Sales Building. The addition includes lavatories, showers, butchering room, wrapping and refrigeration facilities.

**Ornamental Horticulture Unit**

Buildings for ornamental horticulture include a propagation house, greenhouses, and lath-houses. The entire campus provides the principal project area, with students doing all of the landscaping and grounds maintenance under the supervision of the instructors.

**Draft Horse Barn**

Three registered Suffolk mares and other draft horses are stabled at the draft horse barn and are used in various types of farming operations.

**Thoroughbred Breeding Unit**

A barn, paddocks, and pastures to accommodate eight Thoroughbred mares and their offspring, and two Thoroughbred stallions, was dedicated in December of 1940.

Mares were donated by the following men: C. E. Perkins, Walter T. Wells, Bing Crosby, Charles E. Cooper, A. W. De Veau, Walter H. Hoffman, and Henry P. Russell. A \$15,000 imported stallion was donated by Walter T. Wells.

Adequate barns and stalls are available to accommodate these mares and their foals and yearlings. Pastures and paddocks to accommodate mares and foals, and yearlings also are provided. The yearlings are sold at the California Breeders' annual sale.

California Breeders Association, under the program, is donating services of different stallions for these mares.

**Agricultural Engineering**

In addition to two older shop buildings devoted to agricultural engineering laboratory work, two shops, built in 1940 by the Federal Government for national defense training, have been converted and completely equipped as farm machinery laboratories. A farm machinery and agricultural engineering building, 100x180 feet with a 60x60 foot wing, was completed in the summer of 1947.

**ENGINEERING INSTRUCTION BUILDINGS****Engineering Building**

In this large, modern, two-story structure, built in the spring of 1940, are the laboratories, faculty offices, and some of the classrooms used by three of the major engineering departments. The building, with its two large wings and an assembly room for 500 students, is completely air conditioned.

**Air Conditioning and Refrigeration**—Occupying one wing of the building, this department has one of the finest equipped college laboratories of its type in the United States. The laboratories, having a total of more than 6,720 square feet of floor space, have available for instructional purposes more than \$75,000 worth of equipment. These laboratories consist of a refrigeration laboratory, a heating and ventilating laboratory, and a sheet metal shop. In addition to these laboratories, technical students use the welding and machine shops extensively.

**Architectural Engineering**—Large, well-lighted drafting rooms, occupying the entire top floor of the Engineering Building are used exclusively by this department, which also has available on the same floor a well-equipped blueprint and reproduction room.

**Electrical Engineering**—This department occupies a wing of the Engineering Building approximately 40x110 feet, which is located adjacent to the college power plant. Approximately 1,500 square feet of floor space was made available to the department as an electrical shop building by the recent erection of an all-metal emergency structure behind the power plant. The laboratory and shop is well equipped with various types of D.C. and A.C. electrical apparatus, and tools and equipment for overhaul, maintenance and repair of electrical equipment.

**Aeronautic Engineering Buildings**

Supplementing the original aeronautical engineering building, which is primarily devoted to engine overhaul and laboratories, are a number of other buildings, including a new 120x100 foot hangar located adjacent to the college's flight strip. The flight strip is 3,000 feet long and 200 feet wide. A 20x48 foot utility building has been installed next to the hangar. In 1947 three all-metal buildings were constructed adjacent to the aeronautical engineering building: one 20x96 foot building for painting and laboratories; one 20x48 foot storage building; and one 20x68 foot building for engine overhaul, sand blasting, and cadmium plating.

**Electronic and Radio Laboratory**

The entire second floor of the Agricultural Education building is being used by the Electronic and Radio Engineering Department as four laboratories, a shop, an instrument stockroom, a small parts stockroom, and offices. The laboratories are equipped with special benches designed for radio work. The laboratory has ample testing instruments and equipment, including two radar units.

**Power Plant**

The central heating and power generating and utilities dispersing unit is used by the Mechanical Engineering Department as its laboratory. The power plant is equipped with internal combustion engines, steam engines and steam boilers, and produces a portion of the electric power used on the campus.

**Machine Shop**

This department has moved to a building constructed prior to the war as a machine shop for training defense workers. Complete new equipment has been installed in this well-lighted, large shop building, and all activities of the department have been transferred to the new location.

**Welding Shop**

A large, well-equipped welding shop is available for instruction to students from all divisions of the college. The rear of this shop has been converted into a welding engineering laboratory.

**Other Facilities**

In addition to the major buildings mentioned, facilities are provided for the many related subjects and sciences.



## PROJECT OPERATION

Closely tied in with the college's objective of training students for an occupation is the college's unique project system. This system provides for projects, self-owned or operated by students in such a way as to provide an opportunity to gain knowledge and practical experience in commercial production and marketing of agricultural products or in the construction, rebuilding, repair, or maintenance of industrial machinery and equipment. This combination of the very practical "learn by doing" and "earn while you learn" philosophies not only enables a student to earn money while doing work directly related to his major academic interest, but also creates an added incentive for the more rapid acquisition of further skills and knowledge to the end that the projects will be more profitable.

In each major department students are encouraged by their instructors to take part in project activities, either individually or as a group. There is available a \$90,000 revolving fund from which students may borrow for an investment in livestock, ornamental plants, seeds, feed, machinery to be rebuilt, etc. No co-signer is required for a student to borrow from the project fund, and the fund is so operated as to guarantee against individual student financial loss. Most popular agricultural projects are those of fattening livestock, raising foundation beef, sheep, swine, or dairy cattle; conducting individual dairy projects or operating the project herd as a group; carrying on various production activities of the poultry unit as projects; growing field or truck crops and ornamentals.

In the industrial departments the projects are usually group rather than individual projects. In aeronautics, for example, the department, which is the 84th government approved repair station in the United States and operates under strict C.A.A. regulations, accepts aircraft or engines damaged beyond feasible commercial repair to be overhauled for their owners or to be purchased outright and rebuilt by students.

The project revolving fund of \$90,000 grew out of a loan arrangement started in 1924 with the Citizen's State Bank, which enabled students to borrow directly from the bank to finance their projects. Faculty members of the school stood behind this arrangement to protect the bank. From the very beginning to this project system, a small percentage of each student's net profit reverted back for the purpose of establishing and increasing the revolving fund. Because of the small enrollment in the early years of the project system, the fund was too small to handle the financing of all projects. Up until 1932, students were still borrowing money through the bank to finance many of the projects. After 1933, the college's rapid growth was instrumental in building the fund up to its present size.

The fund is administered by a nonprofit corporation known as the California Polytechnic School Foundation, the board of directors of which are all faculty members. It operates under a lease arrangement made through the State Departments of Education and Finance. Provisions of the lease define the use of the corporation's funds. The accounts are audited by the Department of Finance, and at the close of a fiscal year any cash or securities in excess of the given working capital, which has been set at \$90,000, is sent to the General Fund of the State. The project system of instruction is carried on at the Voorhis Unit of the college as well as at San Luis Obispo.

### Agricultural Project Facilities at San Luis Obispo

The facilities available for agricultural projects are similar to those which would be found on any well-equipped ranch.

In foundation livestock, California State Polytechnic College has some of the best in the State. The beef herd includes Herefords, Angus, and Shorthorns, offspring of which are sold to the students. All necessary equipment for beef cattle production—barns, dehorning and loading chutes, castration equipment, stock horses, etc., are available. Many show champions have come from the beef herd.

The dairy herd includes purebred Jerseys, Guernseys, and Holsteins, including two State Fair champion bulls as herd sires. Equipment includes all the necessary paraphernalia for feeding, milking, care of calves and bulls, milk testing, bottling, separating, and other operations. Students own about 50 head of purebreds.

The swine herd is the outgrowth of a gift from C. Harold Hopkins, owner of Straloch farm, who gave his entire Poland herd—one of the best in western states. Polands, Berkshires, and Durocs are in the breeding herd. Equipment includes the farrowing pens, fattening pens, pig brooders, feeding equipment, etc. Students market between 600 and 700 fat and breeding swine each year.

The sheep flock is principally Hampshire and Southdown, including the sires and dams of many show champions. The new sheep unit centralizes the project facilities,

which are typical of a large scale farm enterprise. Students learn shearing and the care of fleeces, as well as lamb production.

The poultry flock consists of between 3,500 and 4,000 birds. The equipment includes a modern incubator, egg-handling facilities, brooders and brooder houses, pens for trap-nesting and pedigree work, and similar devices. A student assistant and the students themselves care for every operation under the supervision of the department head.

Equipment in ornamental horticulture includes land and buildings already mentioned, garden tractors, potting and spotting equipment, and landscape drafting.

### **SERVICE AND EXTENSION**

The college serves as headquarters for the State Bureau of Agricultural Education. From this point, the bureau directly supervises vocational agriculture throughout the State and provides, with the assistance of the college, foundation stock for high school boys and teaching materials for 275 instructors in 175 high schools in California. This service program to secondary schools includes such activities as: The using of faculty members to visit schools to discuss with teachers and students, dairy, animal husbandry, crops, poultry, farm mechanics, and other agricultural problems; the writing of articles by instructors for agricultural magazines; the corresponding by the faculty members to advise high school departments on the solution of problems; the judging of livestock, poultry, and other products at fairs; the furnishing of breeding stock and hatching eggs to improve the herds and flocks of Future Farmers throughout the State; the preparing of teaching aids, such as film strips, price charts, blueprints, photographs, and economic analyses; and the holding of annual conferences on the campus.

Through the State Director of Vocational Education, the staff is kept constantly in touch with new developments in agricultural education, business education, trades and industries, distributive education, and homemaking education.

### **SUMMER QUARTER**

California State Polytechnic College offers a summer quarter for old or new students. Summer quarter offerings make it possible for a student to shorten the overall length of time necessary to complete a prescribed curriculum.

The summer quarter is divided into two six-week periods, which is equal to the regular twelve-week period of the fall, winter, or spring quarters. However, a student attending the summer quarter has the option of taking either the first or second six-week period, or both.

A minimum load for the total summer quarter is the same as for other quarters. A student must carry a minimum of six quarter units per six-week period, which is equivalent to the 12-unit minimum required in the fall, winter, or spring quarters.

Admission requirements, fees and deposits, and other regulations are the same for the summer quarter as for the other three quarters of the school year.

### **IN-SERVICE PROGRAM**

The college is also the in-service training center for vocational agriculture teachers. During a special summer session, which is not to be confused with the regular summer quarter, courses in skills and professional improvement are offered under the joint sponsorship of the California State Polytechnic College and the State Bureau of Agricultural Education. In addition, the annual conference of the California Agricultural Teachers Association is held on the campus.

### **EXTENSION COURSES**

Extension courses on a college level may be given at various centers throughout the State in certain specialized fields, at such times as demand requires and instructors are available. Credits obtained in such courses may be applied toward meeting credential requirements for special fields of vocational education.

Full information concerning the extension course system will be sent on request.

## ACCREDITATION

California State Polytechnic College is fully approved as a four-year degree-granting institution by the Northwest Association of Secondary and Higher Schools.

The college has been granted regular reaccreditation by the State Board of Education to give the training and to make the recommendation for the following credentials:

Special Secondary Credential in Vocational Agriculture

Special Secondary Limited Credential in Agriculture

Special Secondary Credential in Physical Education

General Secondary Credential with majors in: Agriculture, Health and Physical Education, Life Science and General Science, Mathematics, Physical Science and General Science, and Social Studies.

## THE ALUMNI ASSOCIATION

The California State Polytechnic College Alumni Association is divided into six geographical regions, with a vice president for each region. These regions are:

**Sacramento Valley** made up of Placer, Sutter, Colusa, Yuba, Nevada, Sierra, Butte, Glenn, Tehama, Plumas, Lassen, Shasta, Modoc, Siskiyou, and Trinity Counties.

**North Coast** made up of Napa, Marin, Sonoma, Lake, Mendocino, Del Norte, and Humboldt Counties.

**Central** made up of Calaveras, Alpine, Amador, Sacramento, San Joaquin, Contra Costa, Solano, Yolo, El Dorado, Mono, Mariposa, Merced, Stanislaus, and Tuolumne Counties.

**South Coast** made up of Alameda, San Francisco, San Mateo, Santa Cruz, Santa Clara, San Benito, Monterey, Santa Barbara, and San Luis Obispo Counties.

**San Joaquin Valley** made up of Kern, Kings, Fresno, Tulare, and Madera Counties.

**Southern** made up of Ventura, Los Angeles, San Bernardino, Riverside, Orange, Imperial, San Diego, and Inyo Counties.

Affairs of the association are under the supervision of a Board of Directors, consisting of the president and secretary-treasurer of the state association, the vice president of each region, the past president of the state association, and an ex-officio member appointed by the President of California State Polytechnic College to represent the college.

Further to promote the activities of the association, a committee of 31 has been established, consisting of a state-wide chairman appointed by the president of the association, the six vice presidents, and four members from each of the regions.

The association publishes *The Green and Gold Alumni Review* four times each year. This is the official publication of the association aimed at keeping the membership informed of its activities, the latest happenings at the college, and news briefs about individual members.

The California State Polytechnic College at San Luis Obispo is the official headquarters of the association, and inquiries may be addressed there to obtain information relative to membership and other matters pertinent to the association. In the Southern region inquiries may be directed to the Voorhis Unit at San Dimas.

## HEALTH AND MEDICAL SERVICE

Each student enrolled pays a medical fee, which is \$3 per quarter. The service provided consists of a physical examination, all minor and major surgery free, not including the service of any specialists. In addition, the service includes visits to students' homes and first aid treatment within a radius of five miles of the campus. Diseases of a chronic nature which the student contracted before entering school are not covered. The physician and surgeon is on the campus two hours daily, five days a week in the infirmary. Students may consult him at his office any time by appointment.

The college maintains a well-equipped infirmary which includes a 12-bed ward and four individual rooms. A registered nurse is on duty at all times. Students are generally required to pay fifty cents per day while they are in the infirmary. In the event that special hospitalization is required, students may enter any one of three hospitals located in San Luis Obispo. The student, in turn, must pay for any hospitalization which is required.

Registration is not complete until a student has completed the physical examination satisfactorily.

## **STUDENT COUNSELING CENTER**

The Student Counseling Center offers service to any student or to any prospective student. This service consists of education, vocational, and personal counseling in accordance with the needs of the student. An Occupational Library is maintained, and there is also opportunity to visit a number of departments to explore the type of activity carried on. Each student is assigned an adviser when he enrolls at the college.

## **PLACEMENT**

The primary objective of all instruction at California State Polytechnic College is placement, either in a position as an employee, or in an agricultural or industrial enterprise owned and operated by the graduate. Employment in teaching is now receiving greater emphasis because of an increased demand for teachers.

The placement function is the joint responsibility of department heads and the placement secretary, whose office falls under the direction of the Assistant Dean in Charge of Admissions, Guidance, and Placement. All phases of the student's preparation and experience are considered by the placement secretary as the basis for making effective placement.

No guarantee of placement is made to any student, but a sincere effort is made to find employment for everyone who shows himself worthy of this service.

The institution has been successful for a number of years in placing all or virtually all of its recommended graduates. Not only is placement attempted by the college for each graduate, but men so placed are contacted often. An effort is made to see whether both employer and employee are satisfied, and whether advancement is being made. Better positions in other firms are often found for students who have been doing satisfactory work for a sufficient period to justify advancement.

## **CAMPUS EMPLOYMENT**

In addition to the opportunities for students to earn money through project activities to assist them in meeting expenses, California State Polytechnic College has established a policy of giving a maximum number of students experience by employing them to operate the entire campus and farm. The average earning per student is several times as great as in the typical college where adults are employed full-time to do a large part of the kind of work done by students here. During normal years, California State Polytechnic College employs very few adult gardeners or janitors, no dining hall help except cooks, and only two farm foremen who work with students in maintenance, repair, and farm operation of equipment.

Not only does the college make every effort to place students in employment both on and off the campus, but it seeks to correlate this outside work with the student's major course of study. Students of electrical industries aid in operation of the power plant. Majors in the field of dairying feed and care for the college's dairy herd, milk the cows, and operate the milk plant. Students in ornamental horticulture maintain and improve the lawns, trees, and shrubbery.

## **OFF-CAMPUS EMPLOYMENT**

The college works in cooperation with the California State Employment Service and the local towns-people in finding employment for students working their way through school. Usually this employment consists of odd jobs, although some steady part time work is obtained.

## **CAMPUS ORGANIZATIONS**

Clubs and organizations on the San Luis Obispo campus cover all departments and activities, and the opportunity exists for every student to take an active part in club life. The presidents of the various social clubs and societies form an interclub council which has direct representation in student government. There are nearly 20 departmental clubs in addition to more than 10 social clubs and societies. These numbers do not include the dormitory clubs for students residing in dormitories, which number nearly 20.

## STUDENT BODY GOVERNMENT

Any enrolled student of the California State Polytechnic College is eligible for active membership in the student body association, known as the "Associated Students of the California State Polytechnic College," at San Luis Obispo. The government and direction of the Associated Students and the control of its property is vested in the Student Affairs Council, members of which are selected according to regulations established in the student body constitution.

Benefits and privileges to members of the Associated Students include admission to all student body sponsored activities, such as athletic contests, music activities, and social functions, free or at reduced rates as prescribed by the Student Affairs Council; subscription to the weekly publication, *El Mustang*, and one copy each year of the yearly publication, *El Rodeo*, free or at a reduced rate as prescribed by the Student Affairs Council.

Dues for membership in the Associated Students are prescribed by the Student Affairs Council, subject to approval of a majority vote of the Associated Students.

## ATHLETICS

Intercollegiate competition centers primarily around the activity of the California Collegiate Athletic Association; this college is a member along with Fresno State College, Santa Barbara College of the University of California, San Diego State College, San Jose State College, and Pepperdine College. Conference competition is maintained in football, basketball, baseball, track, boxing, wrestling, gymnastics, fencing, swimming, badminton, tennis, and golf. There is a high level of competition in all sports. It is possible to earn a major letter award in any sport. Freshman teams are maintained in football, basketball, and baseball.

Year-around competition is offered in the intramural sports program and is open to all interested students or faculty; there are numerous teams entered in all sports. Medals are awarded winners in touch football, track, horseshoes, basketball, volley ball, swimming, boxing, wrestling, badminton, softball, tennis, and golf.

The Department of Health and Physical Education offers for all physical activities designed to provide a sound program of recreation, education in physical skills, and the give-and-take of games. Varsity teams in 12 intercollegiate sports offer opportunity for the more skilled. There are limited freshman schedules in three sports. Intramural teams provide year-around competition in a dozen sports at an easier level of play to all who wish to enter.

## PUBLICATIONS

Publications of the student body at the California State Polytechnic College, San Luis Obispo, are not only written and edited by students, but are also printed in the college's own print shop as laboratory work for students majoring in printing. Editorial and photographic work on the publications is done by students of the journalism classes.

*El Mustang*—the official publication of the associated students of the San Luis Obispo campus, published once each week during the school year.

*El Rodeo*—the yearbook of the San Luis Obispo campus.

Other publications include a Poly Royal pictorial, Freshman Handbook, and other miscellaneous publications. The California Future Farmer magazine, a monthly magazine supported by and mailed to the 10,000 Future Farmers of America members in nearly 200 California high schools, is published on the campus.

## POLY ROYAL

Each year, during the spring, the California State Polytechnic College, San Luis Obispo, has an open-house exhibition and show conducted by the associated students. This event is known as the Poly Royal, "a country fair on a college campus." Its purpose is to display the work accomplished during the year by the students, particularly student-owned projects. Each department of the college prepares its own display, and the show is on a competitive basis among the departments.

Besides the shows and exhibits, there are many entertainment features. Each year, the athletic department participates in either baseball or track with selected members of the California Collegiate Athletic Association. There are contests of interest to the general public, among which is an adult organization livestock judging contest, open to a team of three members from any recognized farm organization. One of

the main attractions is the Poly Royal Rodeo in which members of the student body compete in the usual rodeo events.

California State Polytechnic College, being noncoeducational, borrows a queen each year from some other college. This queen and her attendants are treated royally during the Poly Royal, and many social affairs honor them. In the past, queens have been provided by San Francisco State College, Fresno State College, San Jose State College, San Diego State College, Chico State College, and Humboldt State College.

## **SCHOLARSHIPS**

### **FRESHMAN SCHOLARSHIPS**

A number of freshmen scholarships are available at California State Polytechnic College for young men immediately after they have graduated from high school. In all cases, evidence must be submitted that additional financial assistance is necessary in order for the applicant to attend college. The applicant for these scholarships must be approved by the high school principal and one other instructor.

The sophomore and advanced scholarships are granted on the basis of performance of the individual in his work and activities at California State Polytechnic College.

### **Sears, Roebuck and Company State-wide Scholarship Awards**

The Sears, Roebuck and Company offers 21 scholarships to California State Polytechnic College in two different groups; one group being "state-wide scholarships" and the other a "sophomore scholarship" award.

Deeply cognizant of the necessity of developing trained agricultural leadership in the Nation, and recognizing the splendid results in this field now being accomplished by California State Polytechnic College, Sears, Roebuck and Company wishes to broaden the availability of such training by offering scholarships to needy California farm boys of good character and capabilities who might otherwise be unable to enter college.

In carrying out this policy, Sears, Roebuck and Company has granted to California State Polytechnic College, 20 scholarships of \$100 each to be awarded to first-year students who enroll in agriculture for each school year.

The scholarship awards to applicants are determined on the basis of:

1. Financial need for assistance to continue his education.
2. Interest in agriculture and accomplishments as evidenced by his supervised home farm program.
3. Scholarship as shown on the transcript of high school credits, which shall include a statement of the number in the graduating class and the applicant's scholarship ranking in the class.
4. Citizenship and moral integrity, as certified by the high school principal, agriculture teacher, and others qualified to pass judgment on the applicant.

Application should be made through the local high school agriculture teacher, who will have all the necessary information. All candidates for these scholarships will be notified as to their status on or before August 15, 1947.

### **\*South San Francisco and Stockton Union Stockyards Company Scholarship**

Two annual \$100 scholarships are awarded at the Cow Palace Spring Junior Livestock Show, on the basis of excellence of performance in the farm home program in the production of beef cattle, sheep, or hogs. Applicants are limited to those participating in this special event.

### **\*Safeway Stores, Inc., Scholarship**

One annual \$100 scholarship is awarded at the Cow Palace Spring Junior Livestock Show, on the basis of excellence of performance in the farm home program in the production of beef cattle, sheep or hogs. Applicants are limited to those participating in this special event.

### **The Poultrymen's Cooperative Association of Southern California Scholarship**

One annual scholarship of \$100 will be awarded to a prospective student who has had an outstanding home farm program in high school, and part of his home farm program must have been with poultry. The applicant must be a resident of one of the following counties: Fresno, Kings, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, San Diego, San Luis Obispo, or Ventura.

\* These three scholarships go to outstanding Future Farmers for excellence in production of market live stock as demonstrated at the Cow Palace Spring Junior Livestock Show—one company giving the award to a beef producer, one to a lamb producer, and one to a swine producer. The type for which the particular scholarship is given rotates annually.

**Washburn & Condon Scholarship**

Washburn & Condon Livestock Commission Company of Los Angeles and San Francisco, has made available a \$100 scholarship to a resident of any part of California. This young man must have carried an outstanding home farm project that included the production for market of some beef animals, hogs, or lambs, or two or more of them. He must have graduated from high school and be eligible to attend California State Polytechnic College for the school year immediately following the awarding of this scholarship, and he must enroll in the Animal Husbandry Department. He should expect to engage in the production of market livestock after completing his education.

**Challenge Creamery Scholarship**

One annual scholarship of \$100 will be awarded to a Future Farmer student who excels in dairy production and who enrolls as a freshman in dairy industries at California State Polytechnic College. The applicant must be a resident of one of the following counties of California: Humboldt, Sonoma, Marin, Butte, Tehama, Colusa, Sutter, Glenn, San Luis Obispo, Merced, Fresno, Tulare, Kings, Los Angeles, San Bernardino, Imperial, or Stanislaus.

**The E. C. Loomis and Sons Scholarship**

One annual scholarship of \$100 will be awarded to the outstanding graduate in the high school vocational agriculture departments at San Luis Obispo, Arroyo Grande, Santa Maria, or Cambria.

**ADVANCED STUDENT SCHOLARSHIPS****Philip R. Park, Incorporated, Scholarship**

The Philip R. Park, Inc., Naval Station, San Pedro, California, will award two \$100 scholarships to two worthy young men who have completed two years of outstanding work at this school in Animal Husbandry, Dairy Husbandry, or Poultry Production.

**Rucklos Calcium Carbonate Company Scholarship**

One annual scholarship of \$100 will be awarded to a worthy student of animal or dairy husbandry who has complete his freshman year at California State Polytechnic College.

**W. P. Rucklos Scholarship**

One annual scholarship of \$100 will be awarded to a worthy aeronautical student who has completed his freshman year at California State Polytechnic College.

**OTHER SCHOLARSHIPS****Carl Raymond Gray Scholarships**

Four Carl Raymond Gray \$100 scholarships are made available by the Union Pacific Railroad, Omaha, Nebraska. Applicants must have completed two or more years of vocational agriculture, including commendable projects. One scholarship is to be awarded to one resident in each of the following counties: Los Angeles, Riverside, San Bernardino, and Orange. Scholarships may be used at California State Polytechnic College, University of California, or Chaffee Junior College. All applications, however, must be submitted not later than April 15th. Scholarships shall be used within the calendar year after the date of graduation from high school. All project books and a picture of the applicant and, if possible, pictures of his project, must accompany the application.

**Sears, Roebuck and Company Sophomore Scholarship**

The Sears, Roebuck and Company, as a continuation of the freshman scholarship plan already described, will award a \$200 sophomore scholarship to the most outstanding student of those receiving Sears, Roebuck awards as first year students.

**Rotary Scholarships**

Beginning with the school year of 1946-47, the San Luis Obispo Club of the Rotary International made available to California State Polytechnic College, two \$150

scholarships. These scholarships are to be awarded to students of outstanding ability in extra-curricular activities. These students must carry a better than average grade record and must have at least a junior standing the fall quarter following the scholarship awards. The first awards were made in the spring of 1947.

#### **Alumni Scholarship**

Alumni and friends of the college have made available funds to be used for scholarships to students whose qualifications include: satisfactory scholarship, financial need, good character, and an interest in athletics. These scholarships may be from \$50 to \$150, on the approval of the Scholarship Committee.

### **STUDENT LOAN FUNDS**

There are seven Student Loan Funds to assist temporarily worthy students. Loans from these funds are made for varying periods of time and are passed upon by faculty committee.

The character and integrity of the student are the primary qualifications for obtaining a loan, upon evidence of real need for such temporary assistance. Students who have spent funds far beyond the necessary school expenses will not be considered for loans, even though need is shown.

#### **The Wrasse Fund**

The principal source of loans is the Leopold Edward Wrasse Loan Fund, established by an elderly Fresno County farmer for the benefit of deserving boys desirous of an education and needing financial assistance. Approximately \$5,500 will be available for loans each year with the following general provisions:

1. First preference will be given to graduates of Caruthers High School in Fresno County, second preference to graduates of other high schools in Fresno County, and third preference to graduates of California high schools.

2. During the 12-months' period preceding the granting of the loan, the applicant must have earned through his own endeavor at least half of the amount of the desired loan, and must furnish evidence to this effect.

3. Interest will not be charged until graduation, or until the student ends his enrollment. Loans must be repaid within three years after the termination of enrollment.

#### **The Rotary Club Fund**

The San Luis Obispo Rotary Club has established a student loan fund open to any deserving student after one quarter of successful attendance. Applications are made through the business office.

#### **The California State Polytechnic Women's Club Fund**

The social club of women staff members and faculty wives at San Luis Obispo has established a student loan fund, increased each year by some type of public benefit. Loans are made to deserving students after one quarter of successful attendance.

#### **Student Accommodation Loan Fund**

The California State Polytechnic Women's Club and the Associated Students have set up a fund from which students may secure small short term loans.

#### **Wilder Memorial Loan Fund**

The Alumni Association sponsors the Wilder Memorial Loan Fund, from which small short term loans are made to deserving students.

#### **Veterans Loan Fund**

A short time loan fund has been established by the California State Polytechnic Women's Club for assisting needy veteran-students.

#### **California Polytechnic Memorial Loan Fund**

A loan fund has been established from the contributions made by numerous persons. It is designed to aid needy students where immediate financial assistance is needed.



## **ADMISSION, REGISTRATION, AND GRADUATION**

### **ADMISSION REQUIREMENTS**

It is the belief of the California State Polytechnic College Administration that the admission of a student to its classes and his progress through the institution, should be based upon demonstrated and continuing ability and interest, rather than on the completion of a previous pattern of courses under a different environment.

To substantiate this belief, experience has shown that students who have been required to complete a conventional college preparatory course sometimes do not receive best grades; but when confronted with courses involving the sciences and techniques of agriculture and industrial operations in which they are actively interested, they do very well.

The opposite is sometimes true, in that students of good intelligence may make excellent grades in preparatory schools, but when confronted with the need to demonstrate actual skills in technical courses, definitely lack such abilities and do not make successful students.

It is the objective of California State Polytechnic College to give a core of usable and job-getting information and skill courses, surrounded by required natural and social sciences, and complemented with such work in other than the major fields, as to produce graduates from the various curricula with the greatest amount of employability, training in living with others, and reasonable culture.

Therefore, admission to California State Polytechnic College for any of the various curricular levels is open to the graduate of any standard high school upon the submission of evidence of fitness to profit by college instruction, such fitness to be shown by previous scholastic records, by evidence of good moral character and personal qualifications, and by a satisfactory score on such tests as may be required.

Placement tests for the Engineering Division include English, mathematics, physics, to determine whether the students qualify for admission in degree English, college algebra, and college physics, which are prerequisites to enrolling in a major course on a degree level. Similar tests are given agriculture and science and humanities students to determine their proficiency in English, algebra, agricultural mechanics, and science. Preparatory courses are provided for students who need to "brush up" before enrolling in major work on the degree level.

Persons over 21 years of age who have not completed high school may be admitted as special students. Any veteran of World War II who served 90 days or more in the armed services may enter as a regular student whether he has completed high school or not.

In order to complete application for admission, a student must submit the following: First, the application for admission and, second, transcripts of all previous high school and college training. Each application for admission must be accompanied by a \$10 subsistence deposit.

Transcripts and records presented for admission or evaluation will remain in the student's folder as a part of his permanent record upon completion of registration by the student.

Individuals transferring from other colleges or universities who are allowed to enroll at California State Polytechnic College and who would have been on probation had they remained in the college or university, will be admitted to California State Polytechnic College on probation.

### **ADMISSION WITH ADVANCED STANDING**

Persons who have attended junior colleges or four-year colleges will be given full credit for such courses as may be applicable to the pattern of course work in the curriculum followed.

Each application for admission with advanced standing will be considered upon its merits. In accepting work in the major field, the registrar will determine, by examination or otherwise, that the student has acquired the necessary skills in addition

to subject matter. Official evaluation of credit transferred to California State Polytechnic College will not be made until after a full year of residence is completed with at least a minimum load. Transfer credit is not allowed for a grade of D. Evaluation of in-service training will be made on the basis of American Council on Education recommendations.

No limit is placed upon the number of transferable credits, except that no student will be granted a Bachelor of Science degree in any of the various curricula with less than three full quarters of residence, two of which immediately precede graduation, or with less than 50 quarter units of work received in residence at California State Polytechnic College. Also, no student will be granted a three-year technical certificate, a two-year technical certificate, or a two-year vocational certificate with less than two full quarters in residence immediately preceding graduation or with less than 32 quarter units in residence.

The date of graduation for students who do not meet all requirements at any June commencement will show on their permanent record as the closing date of the quarter in which all requirements are met. The student will then receive his diploma at the next annual commencement, or if he is unable to attend, the degree or certificate will be sent by mail. Only those students who have met all graduation requirements will be permitted to participate in the commencement exercises.

### **ADMISSION TO GRADUATE STANDING**

Graduate work is definitely related to the teacher education program at California State Polytechnic College. Graduates of this college and of other institutions, having substantially the same requirements for the bachelor's degree, are eligible to apply to the Office of Admissions for admission to graduate standing.

The applicant must state what his credential objective is when he applies, and his application must be accompanied by an official transcript of all previous college work. After the applicant is issued a permit to register, a committee on graduate study will review the applicant's record and outline a program that will lead to the student's goal. This should be completed before the student registers in any course.

### **CREDIT BY SPECIAL EXAMINATION, AND AUDITING**

Regularly enrolled students are allowed the privilege of "challenging," or taking courses by special examination. Experience or previous training cannot be substituted for college credit. Individuals often enter the college, however, especially qualified in particular subjects. Individuals who feel that they are qualified to take any of the courses offered by special examination may do so under the following regulations:

1. Students desiring credit by examination in courses in which they are enrolled may request such an examination from the instructor at the beginning of the quarter. The instructor has the privilege of including written, oral, or practical tests, or a combination of all three types.

2. A student may receive a grade no higher than a B as a result of passing a course by examination.

3. Unless the student is regularly enrolled in the course at the time he decides to challenge it and take the special examination, a challenge fee of \$1 per unit will be charged. The following procedure will be followed in applying for special examinations:

- a. Report to the recorder's office and secure a special examination petition.
- b. Complete this petition, secure the signature of the instructor of the course, the signature of the registrar, and the signature of the dean of instruction. After the privilege of taking the special examination is granted, the student must pay the special examination fee of \$1 per unit, present the approval sheet to the instructor involved, and take the test.
- c. When the special examination petition is returned to the recorder's office by the instructor, it must be signed in full and must have attached a copy of the examination questions and the written examination, if it is a written examination; a list of skills in which the student was tested, if the examination was a practical examination; or a list of the questions, if the examination was an oral examination.

Regularly enrolled students are allowed to audit courses if they receive permission from the instructor in charge. Students will not receive units of credit nor grades for courses audited.

## FEES AND DEPOSITS

### State Fees and Deposits

Laboratory and Course Fees (quarter) -----	\$5.00
Breakage Deposit (year) -----	10.00
(All deposits refunded at end of year if there are no charges against student)	
Late Registration Fee -----	2.00
Late Return of Registration Cards Fee -----	2.00
Transcript Fee (no charge for first copy) -----	1.00
Evaluation of Record Fee (nonmatriculated students) -----	2.00
Course Challenge by Special Examination Fee (per unit) -----	1.00
Extension Course Fee (per unit) -----	1.00 or 5.00
Change of Program Fee -----	1.00
Failure to Meet Administratively Required Appointment -----	2.00

### Other Fees and Deposits

Subsistence Deposit (all students, year) -----	\$10.00
(Unused portion refundable when student leaves school)	
Associated Student Card Fee (three quarters) -----	15.00
Post Office Box Rental (all students, per quarter) -----	.50
Medical Fee (per quarter) -----	3.00
Graduation Fee -----	6.00
(Must be paid at time application for graduation is submitted)	

NOTE: Fees for the summer quarter are identical to the fees for the other quarters.

## LIVING EXPENSES

Room, per month (subject to change) -----	\$10.00
(Must be paid quarterly in advance; students are required to furnish bed linen and blankets)	
Board, per month (subject to change) -----	40.00
(Must be paid in advance)	

Example of what the average student, not enrolled under Public Law 16, 346, or the California Veterans Educational Institute, pays at time of registration :

Subsistence Deposit -----	\$10.00
Breakage Deposit -----	10.00
Associated Student Card (per year) -----	15.00
Post Office Box Rental (per quarter) -----	.50
Medical Fee (per quarter) -----	3.00
Laboratory and Course Fee -----	5.00
Room Rent (per quarter) -----	30.00
Board (per month) -----	40.00
Books and Supplies (estimated) -----	30.00
	<hr/>
	\$143.50

Example of what the average student enrolled under Public Law 16, 346, or the California Veterans Educational Institute pays at time of registration :

Subsistence Deposit -----	\$10.00
Post Office Box Rental (per quarter) -----	.50
Room Rent (per quarter) -----	30.00
Board (per month) -----	40.00
*Books and Supplies -----	--
	<hr/>
	\$80.50

\* If trainees have a Veterans Administration Letter of Entitlement when they register, books and supplies will be furnished. If they do not have the Letter of Entitlement, the trainee must pay for all fees, books and supplies until the time the letter is presented. There will be a refund made to the veteran when the letter is presented.

**GRADUATION REQUIREMENTS****Degree Curricula****GENERAL REQUIREMENTS FOR GRADUATION**

All candidates for the Bachelor's degree shall have completed the requirements in one of the four-year curricula, shall have spent not less than three quarters in residence, two quarters immediately preceding graduation, shall have earned not less than 50 quarter units in residence, and shall have earned a total number of grade points at least equal to the number of units attempted.

Candidates from the engineering and industrial division must present a minimum of 212 quarter hours of credit for graduation. Candidates from the agricultural, and science and humanities divisions must present a minimum of 200 quarter hours of credit for graduation.

All candidates for the Bachelor's degree shall have completed the following :

1. Eleven hours of English, including nine hours of composition and two hours of public speaking.
2. Nine hours of political science and history, including three hours each of American government and Survey of U. S. History ; and three hours chosen from Background of Modern Affairs or State and Local Government.
3. Twelve hours of physical science.
4. Three hours of family psychology.
5. Five hours of physical training, including two hours of health education.
6. Four-hour course in undergraduate thesis writing and an acceptable thesis.
7. Two hours of undergraduate seminar.
8. One hour of fire safety and accident prevention.
9. In addition, the graduation requirements of the division in which the major is selected and specific requirements of the departmental major selected.

**DIVISION REQUIREMENTS FOR GRADUATION****Agricultural Division**

All candidates for the Bachelor's degree with a major in agriculture shall have completed, in addition to the general requirements, the following :

1. Four hours of organic chemistry. (Except for major in Agricultural Engineering.)
2. Six hours of agricultural mechanics, including two hours in farm tractors. (Except for major in Dairy Manufacturing and Agricultural Inspection.)
3. Six hours in the principles of economics.
4. Six hours in accounting.
5. Six hours in agricultural economics, including three in agricultural prices and three chosen from among farm management, principles of marketing, cooperative marketing, agricultural resources, marketing control and governmental activity.
6. Five hours of mathematics, including three hours of algebra.
7. Eight hours of soil science. (Except for major in Dairy Manufacturing or Poultry.)
8. Twelve hours of biological science determined by major selected. (Except for major in Agricultural Engineering.)

**Engineering Division**

All candidates for the Bachelor's degree with a major in engineering shall have completed, in addition to the general requirements, the following :

1. Eighteen hours of mathematics, including college algebra and trigonometry, analytic geometry, differential calculus, and integral calculus.
2. Twelve hours of college physics.
3. Six hours of engineering drafting.
4. Nine hours of economics including industrial management, industrial economics, and industrial relations.

**Science and Humanities Division**

All candidates for the Bachelor's degree in the Science and Humanities Division shall have completed, in addition to the general requirements, the following :

1. Two hours of personal development.
2. Nine hours of literature.

3. Nine hours of principles of economics.
4. Six hours of college mathematics.
5. Six hours of biological science.
6. Three hours of background of modern affairs and three hours of state and local government. (Except for Social Science major.)
7. Five hours of general psychology.

## Technical Curricula

### GENERAL REQUIREMENTS FOR GRADUATION

(The technical curricula are offered only in Agricultural, Engineering and Industrial divisions.)

Candidates for the technical certificate shall have completed the requirements in one of the three-year technical curricula, shall have spent not less than two quarters in residence immediately preceding graduation, shall have completed not less than 32 quarter units in residence, and shall have earned a total number of grade points at least equal to the number of units attempted.

Candidates from the engineering division shall present a minimum of 159 quarter hours of credit for graduation from the technical curricula. Candidates from the agricultural division must present a minimum of 150 quarter hours of credit for graduation from the technical curricula.

All candidates for the technical certificate shall have completed the following:

1. Nine hours of English.
2. Five hours of physical training, including two hours of health and hygiene.
3. Three hours of American government and two hours of American history.

### DIVISION REQUIREMENTS FOR GRADUATION

#### Agricultural Division

All candidates for the technical certificate with a major in agriculture shall have completed, in addition to the general requirements, the following:

1. Six hours in agricultural mechanics, including a minimum of two hours in tractor operations. (Except for major in Dairy Manufacturing.)
2. Six units in biological science, including three in botany and three in entomology, or six in animal biology and three in anatomy and physiology.
3. Twelve hours in economics, including three hours in economic problems, six hours in bookkeeping and accounting, and three hours in farm management.
4. Two hours of agricultural mathematics.
5. Four hours in soils.

#### Engineering Division

All candidates for the technical certificate for the major in engineering shall have completed, in addition to the general requirements, the following:

1. Nine hours of mathematics.
2. Nine hours in physics.
3. Six hours of machine shop.
4. Six hours of welding.
5. Six hours of engineering drafting.

### DEPARTMENTAL REQUIREMENTS FOR GRADUATION

The requirements under the major departments are listed in the catalog under each department. Many courses in the technical curricula cannot be used to meet graduation requirements in any of the degree curricula. In the engineering division, the nine-hour mathematics requirement may be Mathematics 11, 12, 13. This series does not carry degree credit. Physics 11, 12, 13, which are nonlaboratory courses, will meet the physics requirement but do not carry credit toward meeting degree requirements.

## Vocational and Two-year Technical Curricula

### GENERAL REQUIREMENTS FOR GRADUATION

Two-year curricula are offered both in the Agricultural and the Engineering Divisions. All candidates for these certificates shall have completed the first two years of any of the technical curricula, shall have spent not less than two quarters in residence immediately preceding graduation, shall have earned not less than 32 quarter units in residence, and shall have earned a total number of grade points at least equal to the number of units attempted.

Candidates from the engineering division shall present a minimum of 106 quarter hours of credit for graduation from the two-year technical curricula. Candidates from the agricultural division must present a minimum of 100 hours of credit for graduation from the vocational curricula.

All candidates for these certificates shall have completed the following :

1. Nine hours of English.
2. Five hours of physical training, with at least two hours in health hygiene.
3. Three hours of American government.

### DIVISION REQUIREMENTS FOR GRADUATION

#### Agricultural Division

All candidates for the vocational certificate with a major in agriculture shall have completed, in addition to the general requirements, the following :

1. Two units in agricultural mathematics.
2. Six units in biological science, including either three in botany and three in entomology, or three in animal biology and three in anatomy and physiology. (Except for major in Agricultural Mechanics.)
3. Six units in agricultural mechanics, including two hours of farm tractors. (Except for major in Dairy Manufacturing and Agricultural Inspection.)
4. Nine units in economics, including three in Economic Problems, three in Farm Bookkeeping, and three in Farm Management.

#### Engineering Division

All candidates for the vocational certificate with a major in engineering shall have completed, in addition to the general requirements, the following :

1. Nine hours of mathematics.
2. Nine hours of physics.
3. Six hours of machine shop.
4. Six hours of welding. (Except for major in Architecture or Radio.)
5. Six hours of drafting. (Except for major in Architecture or Radio.)

### DEPARTMENTAL REQUIREMENTS FOR GRADUATION

The requirements under the major departments are listed in the catalog under each department. In the vocational and two-year technical curricula many courses in the major and related fields cannot be used to meet graduation requirements in any of the degree curricula. For example, the English listed under the general requirements for such curricula is Technical English. English Composition will substitute for Technical English, but Technical English will not substitute for English Composition. In the engineering division, the nine hour mathematics requirement may be Mathematics 11, 12, 13. This series does not carry degree credit. Physics 11, 12, 13, which are non-laboratory physics courses, will meet the physics requirement but do not carry credit toward meeting degree requirements.

## **REGULATIONS**

### **ELIGIBILITY FOR INTERCOLLEGIATE ATHLETICS**

Eligibility matters are under the jurisdiction of a faculty committee. In general, regulations are determined by conference rule. Salient points are noted below.

1. Competition is open to regularly enrolled students carrying at least 12 units and passing at least 10 units of college work.

2. Ten or more units and at least ten grade points must have been earned the last quarter of college residence preceding competition.

3. Only three years of varsity competition are allowed.

4. Freshmen and transfer students from four-year colleges must have a year of residence to be eligible. Thirty units complete this requirement for freshmen in football, basketball, track, baseball and other conference sports.

5. Junior college transfers are immediately eligible if previous credits satisfy requirements of the freshman rule. Two years of junior college competition are allowed, plus the three years of varsity competition.

### **CHANGE OF CURRICULUM**

The objective of all training at California State Polytechnic College is to prepare the student for useful employment and for useful citizenship.

Our unique approach makes it mandatory for a student to carry work within his major as a freshman. By carrying this major work early in his program, it is much easier for a student to decide whether or not he enjoys and is fitted for the major he selected. Students who find that they are in a curriculum which does not provide the kind of training for which they have the greatest aptitude are encouraged to transfer to another curriculum as soon as the condition becomes apparent, rather than attempt to overcome an insurmountable handicap.

Transfer from one curriculum to another does not in any way change a student's academic standing. If an individual is on probation in one curriculum and decides to change to another, he will still be on probation under the new choice.

### **CHANGE OF PROGRAM**

A period of 15 days of instruction, starting with the first day that classes are held, at the beginning of each quarter will be allowed for program changes.

After this 15-day period, no courses may be added to a student's program unless a request to do so is made by an instructor.

After the 15-day period for making program changes has ended, students who desire to withdraw from a course may do so by obtaining a "Permit to Withdraw From Courses" from the Recorder's Office. This permit must be properly filled out by the student and signed by the instructor. Before signing, the instructor will indicate whether the student is to receive a grade of F (failure) or W (withdrew) for the course. The grade of W indicates that the student is passing (Grade A to D) in the course at the time of withdrawal. The grade of F indicates that the student has done failing work up to the time of withdrawal.

A fee of \$1 will be charged for each program change except in cases where the change is being made upon the recommendation of the student's departmental adviser.

Students who withdraw from college prior to the end of the quarter shall receive a W or an F grade in each course depending upon whether passing or failing work had been accomplished up to the time of withdrawal.

Public Law 16 veterans should contact their Veterans Administration Training Officer before making any changes in their programs.

## DOUBLE MAJORS

The student will normally meet graduation requirements for a degree or a certificate in one of the major departments. It is permissible for the student to have two majors indicated on his degree or certificate if the requirements of both curricula have been met.

A student who desires to submit only one thesis covering two closely related graduation majors must file a petition for special consideration prior to the last date for filing an application for graduation, as shown in the college calendar.

## CLASS ATTENDANCE

Students are expected to be regular in attendance. It is the only way in which the quantity and quality of work may be kept high. Absence from classes is regarded as a very serious offense, and no excuses for work missed are provided.

An excused absence can be allowed only by the instructor in charge of the class upon consideration of the evidence justifying the absence presented by the student. An excused absence merely gives the individual who missed the class an opportunity to make up the work and does in no way excuse him from the work required.

## GRADING SYSTEM

The following grading system is in effect :

A	-----	Superior
B	-----	Better than average
C	-----	Average
D	-----	Barely passing
E	-----	Incomplete
F	-----	Failure
W	-----	Withdrew from course without failure
NR	-----	No report received from instructor

Scholarship points are assigned to the various grades as follows :

For each unit of Grade A	—3 points
For each unit of Grade B	—2 points
For each unit of Grade C	—1 point
For each unit of Grade D	—0 point
For each unit of Grade E	—0 point
For each unit of Grade F	—1 point minus

Passing grades are marked by A, B, C, D. Grade E (incomplete) indicates a record below passing. It can be made up or completed without repeating the course in class by reexamination, or completing all unfinished work, or both, as the instructor may determine. The removal of Grade E entitles the student to the grade points he may have lost by the condition or failure, and in addition the number of grade points to which he may be entitled for his passing grade.

Grade E may be given to a student for the following reasons :

1. Passing in class work, but final examination not taken.
2. Passing in class work completed and in final examination, but some assigned work not completed.

If a grade of E is not made up to a passing grade during the next time the course is regularly offered, it will automatically revert to an F grade.

Grade F indicates a failure. It is a record so poor that it can be raised to a passing grade only by repetition of the course. The grade of F shall remain on the permanent record, but the accompanying units attempted and the grade points lost will be disregarded if the course is subsequently retaken and passed.

If a P grade is given, it shall be considered a passing grade and allotted two grade points per unit.

The student may repeat a course in which a final grade of D has been received. The first grade earned for the course will remain on the transcript, but the units attempted and the grade points earned will be disregarded for grade point purposes.

Students may obtain grades by leaving self-addressed, stamped envelopes in the recorder's office at the end of the quarter, or by calling for them in that office.



## MINIMUM GRADE REQUIREMENTS

Any student who fails to maintain a C average for any quarter (that is, does not have as many grade points as units undertaken) will be placed on probation for the succeeding quarter. Students on probation may have their activities curtailed until such time as their work is brought up to a C average.

Any student will become subject to dismissal from the California State Polytechnic College if he fails to maintain a C average when on probation, or if his record for any quarter falls below a D average.

Students doing failing work in any course will receive an unsatisfactory grade report at the six-week mid-term period and will be asked to report to their adviser or the dean of their division for counseling. Students who receive D or E grade notices at the end of the six-week mid-term period will be sent notices urging that they see their adviser regarding their low standing.

Students who have been dismissed because of low scholarship will not be admitted until at least one full quarter has elapsed and then only under certain conditions. These students must make application for readmission in writing directly to the president of the college. In applying for readmission, students must list reasons why they should be readmitted and present records of courses attempted or activities directed toward improving their chances for scholastic success. Students readmitted will enter on academic probation.

## PERSONAL CONDUCT

Students whose personal conduct is unsatisfactory may be disqualified from certain activities or dismissed by the administration at any time. Unsatisfactory dismissals are issued to all students dismissed for misconduct, and a notation to this effect becomes a part of the students' permanent record.

All applications for readmission must be in writing and directed to the president of the college. Readmission will not be allowed sooner than one full quarter after date of dismissal. This readmission application must be accompanied by evidence of seriousness of purpose toward maintaining a satisfactory record of conduct. Individuals readmitted will be placed on probation pending proof of seriousness of purpose.

## MAXIMUM AND MINIMUM LOAD

All students except those registered as "special" must be classified in one of the major departments of the college.

Students except those classified as "special" must register for not less than 12 or more than 20 quarter units of work; the only exceptions are made on the joint recommendation of the adviser, the division dean, the registrar, and the dean of instruction, whose signatures must be obtained by the student as he completes a Special Consideration form.

Minimum load requirements may be waived because of poor health or when only a few credits are needed for graduation. Maximum load requirements may be waived only on presentation of evidence of ability to carry successfully such a group of courses.

Veterans enrolled under Public Law 346 must enroll for a minimum of 12 quarter units to receive full subsistence pay. Veterans enrolled under Public Law 16 must enroll according to their assigned "occupational objective" and cannot change their courses or major unless permission is received from their Veterans Administration Training Officer.

## WAR EMERGENCY CHANGES

Students who registered during the war emergency period, September, 1940, to September, 1946, will be allowed to graduate under the following total credit requirements, if college, division, and departmental requirements are met:

B.S. Degree .....	194 quarter units
Technical Certificate .....	145 quarter units
Vocational Certificate .....	97 quarter units

## CREDIT FOR MILITARY SERVICE

1. Nine quarter units of elective credit will be allowed toward graduation to any student submitting evidence of satisfactory completion of 15 weeks of training in the military service of the United States.

2. In addition to the nine quarter units under 1, 13½ quarter units of elective credit will be allowed toward graduation to any student submitting evidence that he has received a commission in the Army, Navy, Coast Guard, or Marine Corps. Maximum total credit possible toward graduation for military service is 22½ quarter units.

3. In allowing for credit for in-service training, California State Polytechnic College is following the recommendations of the American Council on Education in terms of units allowed and subject matter covered.

Military service credit may be used to meet the total requirements of five quarter units for Physical Education and Health Education.

Units allowed for in-service training will be awarded a C grade in cases where no record showing the actual grade earned can be presented.

## **REVISION OF CURRICULAR REQUIREMENTS**

A student is not held for curricular changes affecting quarters which he has completed. A student shall meet the curricular requirements affecting quarters which he has not completed. Completion of a given quarter shall be computed upon a chronological basis.

## **APPLICATION FOR GRADUATION**

Students shall make application for graduation in the recorder's office prior to the last date for filing such applications, as shown in the college calendar.

## **COURSE NUMBERING SYSTEM**

The numbering system used is a three-digit system. Courses are grouped first into number series indicating the college level at which they are taught as follows:

- 1- 9—Preparatory courses
- 10- 99—Technical courses
- 100-199—Freshman courses
- 200-299—Sophomore courses
- 300-399—Junior courses
- 400-499—Senior courses
- 500-599—Graduate courses
- 600-699—Professional courses

The first digit indicates the level or year in which the courses are taught.

The second digit indicates the type of course with numbers assigned as follows:

- 0 or 1—Lecture courses
- 2 or 3—Courses involving both lecture and laboratory
- 4 or 5—Courses composed entirely of laboratory work
- 6 or 7—Undergraduate thesis or seminar
- 8 or 9—Graduate thesis or seminar

The third digit indicates the quarter in which the course is normally taught.

- 1, 4 or 7—Fall quarter courses
- 2, 5 or 8—Winter quarter courses
- 3, 6 or 9—Spring quarter courses

Numbers allowed to technical courses will be divided between the three years as follows. Because only two numbers are used, the first digit will indicate the year in which the course is given, and the second digit will indicate the quarter.

- 11-39—Freshman
- 41-69—Sophomore
- 71-99—Junior

NOTE: Courses numbered 1-99 carry no credit toward meeting degree requirements in any of the curricula.

Examples:

1. Eng. 101, 102, 103—A freshman English lecture series with one course offered in each of the quarters. Numbers Eng 104, 105, 106, or Eng 107, 108, 109, or Eng 111, 112, 113, or Eng 114, 115, 116, or Eng 117, 118, 119 could be used to indicate additional series of lecture courses offered in series in this field in the freshman year.

2. AH 121, 122, 123—A freshman animal husbandry series with one course offered in each quarter including both lecture and laboratory—Numbers AH 124, 125, 126, or AH 127, 128, 129, or AH 131, 132, 133, or AH 134, 135, 136, or AH 137, 138, 139 could be used to indicate additional series of animal husbandry lecture and laboratory combination courses provided in the freshman year.

3. Aero 141, 142, 143—A freshman laboratory or shop aero series with one course offered in each of the three quarters. Numbers Aero 144, 145, 146, or Aero 147, 148, 149, or Aero 151, 152, 153, or Aero 154, 155, 156, or Aero 157, 158, 159 could be used to indicate additional freshman series of aero laboratory courses.

4. Eng 1-2-3—A freshman series of English preparatory courses Numbers Eng 4, 5, 6, or Eng 7, 8, 9 could also be used to indicate other freshman preparatory series.

## SYMBOLS

The following symbols are used to indicate departments in which the courses are offered:

Aero—Aeronautical Engineering  
AC—Air Conditioning and Refrigeration Engineering  
AE—Agricultural Engineering  
AH—Animal Husbandry  
AgI—Agricultural Inspection  
Arch—Architectural Engineering  
Art—Art  
BSc—Biological Science  
CF—Citrus Fruit Production  
CP—Crops Production  
DH—Dairy Husbandry  
DM—Dairy Manufacturing  
Ec—Economics  
Ed—Education  
EE—Electrical Engineering  
EI—Electrical Industries  
EL—Electronic and Radio Engineering  
Eng—English  
FP—Deciduous Fruit Production  
Hist—History  
Jour—Journalism  
M—Maintenance Engineering  
Math—Mathematics  
ME—Mechanical Engineering  
Mu—Music  
OH—Ornamental Horticulture  
PE—Physical Education  
Pol Sc—Political Science  
Poul—Poultry  
Pr—Printing  
PSc—Physical Science  
Psy—Psychology  
SSc—Social Science  
SS—Siel Science  
TC—Truck Crops  
VS—Veterinary Science

## **PREPARATION FOR SECONDARY SCHOOL TEACHING**

California State Polytechnic College is accredited by the State Board of Education to recommend for the following credentials:

- Special Secondary Credential in Vocational Agriculture
- Special Secondary Limited Credential in Agriculture
- Special Secondary Credential in Physical Education
- General Secondary Credential with majors in Agriculture, Health and Physical Education, Life Science and General Science, Mathematics, Physical Science and General Science, or Social Science.

## **GENERAL REQUIREMENTS OF CALIFORNIA STATE POLYTECHNIC COLLEGE FOR RECOMMENDATION FOR A TEACHING CREDENTIAL**

Because of the wide and varied responsibilities placed upon teachers, the State of California and California State Polytechnic College consider that each candidate for a credential should complete a program which includes the broader aspects of human culture, as well as the knowledge and skills necessary to successful teaching in specific fields. An examination of the courses listed under general and division requirements will reveal that provision has been made for a study of: Democratic ideas and ideals of government, including intelligent comprehension of social, economic, and political conditions existing among nations and between the Nation and State; the types of work through which American citizens gain their livelihood; the basic laws of physical and mental health; processes and knowledge used in effective thinking; the social understanding and appreciation of the fine arts; and the role of science in improving human welfare.

As soon as a student feels that he has the personal qualifications essential to successful teaching, he should file with the Committee on Teacher Education an application for admission to the teacher training program.

In addition to this application he must at the proper time submit:

- A. A health certificate on the form prescribed by the State Board of Education.
- B. Evidence of the completion of three units of American Government and three units of American History or the passing of a comprehensive examination on the principles and provisions of the United States Constitution and American History.
- C. Evidence that the applicant meets the citizenship requirements established by the State Labor Code.
- D. Specified test results, including the areas of academic aptitude, English usage, current social problems, general culture, and interests. The tests will ordinarily be administered by the College during the course, Principles of Secondary Education (Ed. 301). The primary purpose of these tests is to inform the student of his achievement and abilities so that he can build on his strengths and eliminate his weaknesses. A secondary purpose is to help the college to appraise the student for selection, preparation, and placement purposes in order to produce the best possible teacher.
- E. Evidence of the completion with a grade point average of 1.5 of the general and division requirements for the B.S. degree. Where graduate work is required for a credential, a grade point average of 1.75 is required for work taken in the graduate year.
- F. A program that includes the specific requirements for the credential for which the candidate is applying.

**SPECIFIC REQUIREMENTS****The Special Secondary Credential in Vocational Agriculture**

An applicant for a California State Polytechnic College recommendation for a Special Secondary Credential in Vocational Agriculture must submit:

- I. Verification of A, B, C, D, and E under General Requirements.
- II. Three years of farm experience or its equivalent.
- III. A four-year college course with a bachelor's degree in agriculture, including:

	<i>Minimum Quarter Units</i>
A. Plant Production .....	23
B. Animal Husbandry .....	23
C. Agricultural Mechanics .....	12
D. Agricultural Economics .....	9
E. Total units in the above four fields.....	90
F. Eleven quarter units in education distributed as follows:	

	<i>Quarter Units</i>
1. Principles of Secondary Education.....	3
2. Educational Psychology .....	5
3. Teaching Plans and Techniques.....	3

G. Electives as approved by adviser.

IV. One year of graduate work \* including:

A. Twenty-one quarter units of education, including:

1. Curriculum and Methods in Vocational Agriculture.....	3
2. Directed Teaching in Vocational Agriculture.....	12
3. Electives from the following (select minimum of 6)	
Audio-Visual Aids .....	3
Secondary School Administration.....	3
History and Philosophy of Education.....	3
Evaluation in Secondary Education.....	3
Counseling and Guidance in Secondary Schools.....	3
Adult and Continuation Education.....	3
Education Sociology .....	3
Seminar in Vocational Education and Guidance.....	3

B. Additional courses in education as approved by the agricultural teacher-trainer.

**The Special Secondary Limited Credential in Agriculture**

An applicant for a California State Polytechnic College recommendation for the Special Secondary Limited Credential in Agriculture must submit:

- I. Verification of A, B, C, D, and E under General Requirements.
- II. A bachelor's degree with not less than 36 quarter units in agriculture, including:
  - A. Twelve quarter units of work in each of the specified subjects to be named on the credential. California State Polytechnic offers courses sufficient to meet these requirements in the fields of:
    1. Agricultural inspection
    2. Crops production
    3. Dairy husbandry and manufacturing
    4. Fruit production
    5. Ornamental horticulture
    6. Animal husbandry
    7. Poultry
    8. Agricultural engineering

\* A minimum of 36 quarter units of work approved for graduate credit, taken after the student has been admitted to graduate standing.

## B. Twenty-six quarter units of professional work in education, including:

	<i>Quarter Units</i>
1. Principles of Secondary Education.....	3
2. Educational Psychology .....	5
3. Teaching Plans and Techniques.....	3
4. Directed Teaching in Agriculture.....	9
5. Curriculum and Methods in Vocational Agriculture.....	3
6. Elective in Education.....	3

## C. Other courses in education, the major, or the minor fields as approved by the adviser or agriculture teacher-trainer.

**The Special Secondary Credential in Physical Education**

An applicant for a California State Polytechnic College recommendation for the Special Secondary Credential in Physical Education must submit:

## I. Verification of A, B, C, D, and E under General Requirements.

## II. A bachelor's degree including:

## A. A minimum of 68 units in Health and Physical Education.

## B. Twenty-nine quarter units of professional work in education, including:

	<i>Quarter Units</i>
1. Principles of Secondary Education.....	3
2. Educational Psychology .....	5
3. Teaching Plans and Techniques.....	3
4. Directed Teaching in Physical Education.....	9
5. Curriculum and Methods in Health and Physical Education.....	3
6. Electives .....	3

## C. Other courses in education, health and physical education, and electives approved by adviser.

**The General Secondary Credential**

An applicant for a California State Polytechnic College recommendation for the General Secondary Credential must submit:

## I. Verification of fulfillment of A, B, C, D, and E under General Requirements for a California State Polytechnic College recommendation for a credential.

## II. A four-year college course with a bachelor's degree, including:

## A. A minimum of 11 units in education as follows:

	<i>Units</i>
1. Principles of Secondary Education.....	3
2. Educational Psychology .....	5
3. Teaching Plans and Techniques.....	3

## B. The following requirements or their equivalents:

1. General Biology .....	6
2. State and Local Government.....	3
3. Background of Modern Affairs.....	3
4. Literature, Communicative Arts such as Speech Arts, Languages, Journalism, Art, Music, and similar approved fields, but including at least 3 units in Literature.....	9
5. Economics .....	9
6. Mathematics .....	6

## III. A. Completion of a teaching major (54 units minimum, of which at least 18 must be taken in the junior, senior, and graduate courses) in the field of agriculture, biological science, health and physical education, mathematics, physical science, or social science.

## B. Completion of a teaching minor (minimum of 30 units) in a field in which majors are offered.

- IV. One full year of graduate work of not less than 36 units, taken in residence after the student has been admitted to graduate standing at California State Polytechnic College. These units shall include:

	<i>Units</i>
A. Directed Teaching .....	9
B. Audio-Visual Aids (if not already taken) .....	3
C. Twelve additional units selected from the following:	
1. History and Philosophy of Education .....	3
2. Secondary School Administration .....	3
3. Evaluation in Secondary Education .....	3
4. Counseling and Guidance in Secondary Schools .....	3
5. Adult and Continuation Education .....	3
6. Seminar in Vocational Education and Guidance .....	3
7. Educational Sociology .....	3
D. At least 9 units in the major teaching field, including curriculum and methods in the major field.	
E. Other courses to complete minimum requirements in the teaching fields and for the graduate year.	

#### DEPARTMENTAL REQUIREMENTS FOR TEACHING MAJORS AND MINORS

In addition to the requirements I, II, and IV above, the candidate shall complete requirements for a teaching major and a teaching minor. The candidate should contact the department head or representative of the teaching major before registering for his junior year, for information concerning the integration of credential requirements with his graduation pattern.

##### AGRICULTURE—Teaching Major (90 units)

The requirements are the same as for the Special Secondary Credential in Vocational Agriculture.

##### AGRICULTURE—Teaching Minor (33 units)

	<i>Units</i>
Agricultural Mechanics (AE 121) .....	2
Anatomy and Physiology (VS 123) .....	3
(Prereq. BSc 131, 132)	
Feeds and Feeding (AH 101, 102) .....	4
Select one of the following sequences .....	12
Animal Husbandry 121, 122, 123	
Dairy Husbandry 121; Dairy Manufacturing 132; Dairy Husbandry 123	
Poultry 121, 122, 123	
Truck Crops 124, 125, 126	
Crop Production 121, 122, 123	
Fruit Production 131, 132, 133	
Ornamental Horticulture 121, 122, 123	
Three of the following general courses, outside of the major department selected above .....	12
Animal Husbandry 130	Truck Crops 230
Dairy Husbandry 130	Field Crops 220
Poultry 230	Fruit Production 230
General Nursery Practices 230	

##### BIOLOGICAL SCIENCE—Teaching Major (72 units)

###### First and Second Years

	<i>Units</i>
Survey of Physical Science (PSc 101, 102, 103) .....	12
General Botany (BSc 121, 122, 123) .....	12
General Zoology (BSc 131, 132, 133) .....	12

<b>Third and Fourth Years</b>		<i>Units</i>
Genetics (BSc 303)-----		3
General Chemistry (PSc 321, 322, 323)-----		12
Elective courses from Biological Science offerings and a maximum of nine units of the following applied courses-----		15
Animal Breeding (AH 301)-----	3	
(Prereq. VS 123, BSc 303)		
General Field Crops (CP 220)-----	3	
General Fruit Production (FP 230)-----	3	
General Truck Crops (TC 243)-----	3	
Plant Propagation (OH 101)-----	4	
General Nursery Practices (OH 230)-----	3	
General Poultry Production (Poul 230)-----	4	
Soils (SS 221)-----	4	
Anatomy and Physiology (VS 123)-----	3	
(Prereq. BSc 131, 132)		
Livestock Hygiene and Sanitation (VS 202)-----	3	
(Prereq. VS 123)		
Animal Parasitology (VS 203)-----	2	
(Prereq. BSc 131, 132)		
Animal Nutrition (VS 402)-----	3	
(Prereq. VS 123 and Chemistry)		

<b>Graduate Year</b>		
Curriculum and Methods in Biological Science (BSc 521)-----	3	
3 units from :		
Histology (BSc 522) or		
Plant and Animal Cytology (BSc 523)-----	3	
Or other junior, senior, or graduate courses approved by adviser.		

**BIOLOGICAL SCIENCE—Teaching Minor (36 units)**

General Botany (BSc 121, 122, 123)-----	12
General Zoology (BSc 131, 132, 133)-----	12
12 units from any one of the 3 following sequences :	
General Chemistry (PSc 321, 322, 323) or	
Survey of Physical Science (PSc 101, 102, 103) or	
Chemistry (PSc 324, 325, 326)-----	12

**HEALTH AND PHYSICAL EDUCATION—Teaching Major (65 units)**

<b>First and Second Years</b>		<i>Units</i>
General Zoology (BSc 131, 132)-----	8	
Safety and First Aid (PE 101)-----	2	
Playground and Recreation (PE 102)-----	2	
Swimming and Water Sports (PE 103)-----	2	
Intramural Sports (PE 202)-----	3	
Community Hygiene (PE 203)-----	3	
<b>Third and Fourth Years</b>		
Football Theory (PE 321)-----	3	
Baseball and Softball Theory (PE 323)-----	3	
Anatomy and Kinesiology (PE 302)-----	3	
Track and Field Theory (PE 331)-----	3	
Basketball Theory (PE 422)-----	3	
Organization and Adm. of P.E. (PE 401)-----	3	
Physical Education Activity (PE 341, 342, 343)-----	6	
Tests and Measurements in P.E. (PE 411)-----	3	
Recreation Sports Activities (PE 402)-----	3	



**Graduate Year***Units*

Completion of the following courses in Physical Education :

Curriculum and Methods in Health and P.E. (PE 403) .....	3
Corrective Physical Education and Athletic Training (PE 406) <i>or</i> Advanced Personal Hygiene (PE 512) .....	3
Directed Teaching (Ed 421) .....	9
Other courses approved for graduate credit .....	

**HEALTH AND PHYSICAL EDUCATION—Teaching Minor (30 Units)****First and Second Years***Units*

Physical Education (PE 141, 142, 143, 241, 242, 243) .....	3
Health and Hygiene (PE 107) .....	2
Playground and Recreation (PE 102) .....	2
Intramural Sports (PE 202) .....	3
Community Hygiene (PE 203) .....	3
Safety and First Aid (PE 101) .....	2

**Third, Fourth, or Fifth Years**

Minor Sports Theory and Practice (PE 423) .....	3
Organization and Adm. of Phys. Ed. (PE 401) .....	3
Curriculum and Methods in Health and Phys. Ed. (PE 403) .....	3
Electives—6 additional units selected from the following: .....	6
Football Coaching Theory (PE 321) .....	3
Basketball Coaching Theory (PE 422) .....	3
Baseball Coaching Theory (PE 323) .....	3
Track and Field Coaching Theory (PE 331) .....	3

**MATHEMATICS—Teaching Major (54 units)**

(18 units of the 54 must be in applications of mathematics)

**First and Second Years***Units*

Intermediate Algebra (Math 107) .....	3
College Algebra (Math 108) .....	3
Analytic Geometry (Math 109) .....	3
Differential and Integral Calculus (Math 201, 202, 203) .....	9

In addition, at least 3 units from the following :

* Elementary Engineering Problems (Math 213) .....	2
* Mathematics for Printers (Math 105) .....	3
* Agricultural Mathematics (Math 102, 103) .....	2 or 3
* Surveying .....	2, 4, or 6
Trigonometry (Math 106) .....	3
* Descriptive Geometry (ME 125, 126) .....	6
* Slide Rule (Math 104) .....	1
* First course in Statistical Methods (Math 211) .....	3

**Third and Fourth Years**

Differential Equations (Math 301, 302) .....	4
Theory of Equations (Math 307, 308) .....	6
* Secondary School Mathematics (Math 402, 403) .....	6
* Engineering Problems I (Math 313) .....	3

In addition, at least 5 units from the following :

Differential Equations (Math 303) .....	2
Non-Euclidean Geometry (Math 401) .....	3
* Engineering Mechanics (PSc 201) .....	3
* Engineering Problems II (Math 411) .....	3
Advanced Calculus (Math 412, 413) .....	3 or 6
Undergraduate Thesis and Seminar (Math 461, 462, 463) .....	6

\* Applied courses.

Completion of :	Graduate Year	Units
* Curriculum and Methods in Mathematics (Math 521) .....		3
3 units from the following :		
Introduction to Theory of Functions of Complex Variable (Math 500) .....		3
Vector Analysis (Math 502, 503) .....		4
Foundations of Mathematics (Math 510) .....		3
Seminar (Math 580) .....		3
3 units from any junior, senior, or graduate mathematics course approved by adviser.		

**MATHEMATICS—Teaching Minor (30 units)**

	First and Second Years	Units
Intermediate Algebra (Math 107) .....		3
College Algebra (Math 108) .....		3
Analytic Geometry (Math 109) .....		3
Differential and Integral Calculus (Math 201, 202, 203) .....		9
<b>Third and Fourth Years</b>		
* Secondary School Mathematics (Math 402 or 403) .....		3
In addition, 6 units from the following :		
Differential Equations (Math 301, 302, 303) .....	2, 4, or	6
Theory of Equations (Math 307, 308) .....	3 or	6
* Engineering Problems I (Math 313) .....		3
Non-Euclidean Geometry (Math 401) .....		3
* Engineering Mechanics (PSc 201) .....		3

**Graduate Year**

3 units selected from the following :	
* Curriculum and Methods in Mathematics (Math 521) .....	3
Vector Analysis (Math 502, 503) .....	4
Foundations of Mathematics (Math 510) .....	3
Any junior or senior mathematics course .....	3

**PHYSICAL SCIENCE—Teaching Major (68 units)**

	First and Second Years	Units
General Physics (PSc 131, 132, 133) .....		12
General Chemistry (PSc 321, 322, 323) .....		12
Sound (PSc 202) .....		3
Light (PSc 223) .....		3
Construction of Laboratory Glassware (PSc 243) .....		1
Machine Shop (ME 141, 142) .....		2
Analytic Geometry (Math 109) .....		3
Differential and Integral Calculus (Math 201, 202, 203) .....		9
<b>Third and Fourth Years</b>		
Organic Chemistry (PSc 326) .....		4
Quantitative Analysis (PSc 331) .....		4
Electives from the following applied courses : .....		6
Soils (SS 221) .....		3
Engineering Mechanics (PSc 201) .....		3
Strength of Materials (ME 202) .....		3
Internal Combustion Engines (ME 101) .....		3
Direct and Alternating Current Circuits (EE 223, 208, 209) .....		10
Survey of Electronics and Radio (EL 111, 112, 113) .....		6
Fluid Flow (ME 311, 312) .....		6
Heat Transfer (ME 313) .....		6
Other courses approved by adviser.		

\* Applied courses.

<b>Graduate Year</b>	<b>Units</b>
Curriculum and Methods in Physical Science (PSc 521) -----	3
In addition select six units from the following :-----	6
Advanced Inorganic Chemistry (PSc 513) -----	3
Philosophy of Science (PSc 512) -----	3
Nuclear Physics (PSc 502) -----	3
Ag Biochemistry (PSc 328) -----	3
Selected topics in Advanced Physics (PSc 501) -----	3
Other courses approved for graduate credit.	

<b>PHYSICAL SCIENCE—Teaching Minor (38 units)</b>	<b>Units</b>
General Physics (PSc 131, 132, 133) -----	12
General Chemistry (PSc 321, 322, 323) -----	12
A minimum of 11 units selected from the following courses, not more than 8 units of the minimum to be selected from either physics or chemistry.	
Sound (PSc 202) -----	3
Light (PSc 223) -----	3
Engineering Mechanics (PSc 201) -----	3
Quantitative Analysis (PSc 331, 332) -----	4 or 8
Organic Chemistry (PSc 326) -----	4
Ag. Biochemistry (PSc 328) -----	4

<b>Graduate Year</b>	
Three units selected from the following :	
Curriculum and Methods in Physical Science (PSc 521) -----	3
Other courses offered in teaching major, graduate year.	

<b>SOCIAL SCIENCE—Teaching Major (57 units)</b>	
<b>First and Second Years</b>	<b>Units</b>
History of Civilization (Hist 101, 102, 103) -----	9
Contemporary Civilization (SSc 201, 202, 203) -----	9
American Government (PolSc 301) -----	3
Principles of Economics (Econ 201, 202, 203) -----	9
<b>Third and Fourth Years</b>	
* History of the United States (Hist 301, 302, 303) -----	9
† Background of Modern Affairs (Hist 305) -----	3
State and Local Government (PolSc 401) -----	3
Agricultural Resources (Econ 305) -----	3

<b>Graduate Year</b>	
Curriculum and Methods in Social Science (SSc 521) -----	3
Three units from each of the following 2 groups :-----	6
1. Sources in Social Science (SSc 504) -----	3
Seminar in History of the Far East (Hist 502) -----	2
Seminar in Economic History of the United States (Hist 501) -----	2
Commercial Law (Econ 316) -----	3
2. Cooperative Marketing (Econ 402) -----	3
Industrial Relations (Econ 412) -----	3
Industrial Management (Econ 411) -----	3
Marketing Control and Government Activity (Econ 413) -----	3

\* Hist. 304 will not substitute for any part of this requirement.

† Pol. Sc. 312 and 313 may be substituted for the requirement and three units of elective.

**SOCIAL SCIENCE—Teaching Minor (30 units)**

<b>First and Second Years</b>		<i>Units</i>
American Government (PolSc 301) -----		3
<b>Third and Fourth Years</b>		
* United States History (Hist 301, 302, 303) -----		9
† Background of Modern Affairs (Hist 305) -----		3
State and Local Government (PolSc 401) -----		3
Three units selected from the following: -----		3
Agricultural Resources (Econ 305) -----		3
Industrial Relations (Econ 412) -----		3
Industrial Management (Econ 411) -----		3
Cooperative Marketing (Econ 402) -----		3
<b>Graduate Year</b>		
Curriculum and Methods in Social Science (SSc 521) -----		3
Six units selected from the following: -----		6
Marketing Control and Government Activity (Econ 413) -----		3
Seminar in Econ. Hist. of U. S. (Hist 501) -----		2
Seminar in History of the Far East (Hist 502) -----		2
Sources in Social Science (SSc 504) -----		3

**SELECTION OF CANDIDATES AND DIRECTED TEACHING**

The college is of particular importance in the training program for prospective agriculture teachers and in-service teachers, and is approved by the State Board of Education for recommending qualified graduates for the Special Secondary Credential in Vocational Agriculture, the Special Secondary Limited Credential in Agriculture, the Special Secondary Credential in Physical Education, and the General Secondary Credential.

**SPECIAL SECONDARY CREDENTIAL IN VOCATIONAL AGRICULTURE****Selection of Teacher Candidates**

The graduate or fifth year program, known as the "cadet year," is open to graduates of an agricultural college, who have a Bachelor of Science degree in agriculture and who meet all qualifications. In practice, most of the trainees are selected from two California agricultural colleges and are generally in contact with the teacher training staff during their senior year in college or before. The selection process is very rigid. All are weeded out except those with practical farming experience, good college records, and demonstrated abilities in leadership of farm youth. In common with the practices followed with teacher candidates seeking credentials, prospective vocational agriculture teachers submit their records and applications to the Committee on Teacher Training for evaluation.

**Graduate or Fifth-year Program**

Following the period of selection, the teacher candidates are enrolled for one year of training on the graduate level, with the specific provision and understanding that there will be a further evaluation and culling at the end of the first month, or at any other time during the training period when it appears that the candidate will probably not make a successful agriculture teacher.

This period is divided roughly into two parts—a period of time spent at California State Polytechnic College adding to technical proficiency and securing professional training through regular classes under the teacher training department and a period of time spent in a selected "critic center" under the careful supervision of an especially chosen, experienced vocational agriculture critic teacher.

It is essential that the vocational agriculture teacher have two basic assets—farming knowledge and teaching ability. In any group of teacher candidates entering the training period, there will be a wide range in their accomplishments and abilities

\* Hist. 304 will not substitute for any part of this requirement.

† Pol. Sc. 312 and 313 may be substituted for the requirement and three units of elective.

from the individual with considerable teaching ability and perhaps some experience, but lacking farming skills and knowledge; to the individual with ability to perform correct agricultural practices, but lacking expertness in teaching techniques.

Under the California system, the proportion of time spent in skills acquisition and methods training, and the proportion of time spent in practice teaching under actual conditions and careful supervision, are maintained on a flexible basis, so that the individual "teacher-in-preparation" may be assigned a greater time to that type of training program most needed.

California is marked by its diversity of agricultural products, many of which are not produced in other states, and its specialization on the individual farm. The vocational agriculture teacher is usually required to have a working knowledge of about twenty-five to thirty important enterprises, calling for a wide variety of experience.

Because of California's unique agricultural situation, it is virtually impossible for even an experienced out-of-state agriculture teacher to enter vocational agriculture teaching in this State with knowledge and skills of sufficient variety to meet the California requirements. The in-service training program, described previously, gives the out-of-state teacher an opportunity to prepare himself to meet California conditions. Without exception, agriculture college graduates who have no teaching experience must avail themselves of the full fifth year cadet training program.

### **Directed Teaching and Teacher Supervision**

"Critic centers" used for directed teaching consist of selected high school vocational agriculture departments located near the teacher training office. The teacher candidate becomes a regular member of the high school faculty, with very limited duties at first, while he principally observes the classroom procedure, lesson planning, and Future Farmer activities of the critic teacher who is his immediate supervisor. Only one or two teacher candidates are placed at a critic center, and their training program is arranged so that they gradually take over the class instruction and actually direct the activities of the department, under the guidance of the critic teacher. They have full charge of class discipline and Future Farmer meetings; they participate in extra-curricular events at the school; they meet parents of boys on home project supervision visits and make other contacts in connection with community affairs.

During the entire year, the teacher candidate is under the supervision of a member of the teacher training staff. This coordinator frequently visits the critic center, observes the practice teaching of the candidate, makes suggestions for improvement, and discusses the progress of the candidate with the critic teacher. Critic centers are located sufficiently close together that the candidates may be called together for frequent evening or Saturday meetings when additional training may be made available.

There is a threefold approach to the teacher training program at the college. The student enrolls in courses in professional education, agriculture, and through courses, work, and project experience learns the managerial problems of producers. The classes in agriculture are conducted by the regular college agricultural faculty, some of whom are former outstanding high school vocational agriculture teachers who know specifically the training most essential to high school agriculture teaching. Other faculty members, because of their own successful production experience, know the managerial problems of producers firsthand.

There are usually 25 to 30 candidates. About half of the group normally does critic teaching while the other half is in resident instruction at the college. At present the equivalent of two and one-half full-time teacher loads is devoted to the teacher training program, in addition to the services of the critic teacher and the other college faculty members who provide particularly the agricultural and managerial training. It may be emphasized that the graduate training program is an extensive one.

## **SPECIAL SECONDARY LIMITED CREDENTIAL IN AGRICULTURE**

### **Selection of Teacher Candidates**

Prospective teachers of nonvocational agriculture must submit their records and applications to the Committee on Teacher Training for evaluation. The selection process takes into consideration agricultural experience, college records, and demonstrated abilities in leadership.

The special secondary limited credential in agriculture entitles the holder to teach those agricultural subjects listed on the credential. Before a subject may be listed on the credential, the applicant must have completed a minimum of 12 quarter hours of work in each of the specified subjects to be named on the credential. For these reasons, the

work completed in the agricultural subjects are scrutinized closely by the Committee on Teacher Training.

#### **Directed Teaching and Teacher Supervision**

The directed teaching requirement will be met by assigning the candidate teaching responsibilities in his field in one of the agricultural teaching centers. Directed teaching may be completed in fall, winter, or spring quarters of the senior year. Assignment to teaching centers will depend on distribution of a candidate's load over the senior year, and activity within the teaching center.

The teacher candidate will be under the direction and observation of the "critic teacher" in the teaching center and the Committee on Teacher Education of California State Polytechnic College. Location of teaching centers has been arranged in high schools in areas near the college to facilitate close and careful supervision of teacher candidates.

### **SPECIAL SECONDARY CREDENTIAL IN PHYSICAL EDUCATION**

Requirements for the special secondary credential in physical education may be completed in a four-year program. Athletic facilities, competitive programs, and intramural activities provide excellent opportunities for the prospective teacher of physical education and hygiene.

#### **Selection of Teacher Candidates**

Prospective teachers of health and physical education must submit their records and applications to the Committee on Teacher Education for evaluation. The selection process takes into consideration the scholastic and athletic records, and demonstrated ability in leadership, coaching and management of physical education and health programs. The individual's activity record is scrutinized very closely, because physical education and health teachers as a rule take a very active part not only in the physical education but also in the athletic program of high schools in California.

#### **Directed Teaching and Teacher Supervision**

The directed teaching requirement will be met by assigning the teacher candidate responsibilities in the field of physical education and health in one of the high school teaching centers. Supervision and training demanded by the comprehensive physical education intramural and competitive athletic program at the college provides many additional opportunities for teaching and supervisory experience previous to assignment to high school teacher training centers. Directed teaching may be completed during fall, winter, or spring quarters of the senior year.

The teacher candidate will be under the direct supervision and observation of the physical education and hygiene teachers in the teaching center, and the Committee on Teacher Education of the California State Polytechnic College.

### **GENERAL SECONDARY CREDENTIAL**

#### **Selection of Teacher Candidates**

In the interest of the candidate, the Committee on Teacher Education reviews an applicant's record and secures from his instructors appraisals of his probable chances of success. The purpose is to insure that the investment of two or more years in teacher preparation is a wise one and to help the candidate realize his maximum potentialities. Further evaluation of his record is made when he applies for directed teaching and when he is finally recommended for the credential.

#### **Directed Teaching and Teacher Supervision**

Directed teaching for candidates for the General Secondary Credential will be conducted in the schools of the San Luis Obispo area. Supervision of this program will be by the representative of the student's major department who will also teach the course in Curriculum and Methods in the major subject. It will be necessary for the teacher candidate to spend one-half day for a full quarter in the high school teaching center. Ordinarily the candidate will be assigned a class in his major and a class in his minor, and will devote an additional hour each day to familiarizing himself with the other services required of secondary school teachers in their programs.

## **THE AGRICULTURAL DIVISION**

The various curricula in the agricultural division are outlined and the courses described on the following pages. Each curriculum in the division follows a common pattern of related courses and a specific pattern of requirements within the major.

These curricula are so arranged that a student beginning as a freshman carries a large portion of major courses. This approach makes it possible for a student to determine in a rather short time whether or not he is fitted for the curriculum he has selected.

### **THE DEGREE CURRICULA IN AGRICULTURE**

The degree curricula in agriculture include the following: Animal Husbandry, Agricultural Inspection, Agricultural Engineering and Mechanics, Crops Production, Truck Crops Production, Fruit Production, Citrus Fruit Production, Dairy Husbandry, Dairy Manufacturing, Ornamental Horticulture, Poultry Husbandry, Soil Science.

Students wishing to major in Agricultural Inspection or Citrus Fruit Production must complete the first two years of their program in attendance at the Voorhis Unit at San Dimas, California. Those interested in subtropical horticulture should spend the first two years in this major at the Voorhis Unit, San Dimas.

Electives in the degree curricula are few in number in the freshman and sophomore years and are increased in the junior and senior year. Electives may be chosen from among other agricultural fields, or they may be selected from courses listed under the Engineering or Science and Humanities Division.

Admission to the agricultural division demands high school graduation, but does not require specific pattern requirements. It is to prospective students' advantage, however, to enroll in the agricultural division with a good high school background in both physical and biological science.

### **TECHNICAL CURRICULA**

In each of the agricultural majors, the three-year technical curriculum is provided. The essential differences between the technical curriculum and the degree curriculum are: First, the technical curriculum may be completed in three years; second, although the course requirements under the major selected are very similar, the technical student is required to take less work in the related fields and is allowed more elective time for specialization or for use at his discretion in preparing himself in his major.

These curricula have two distinctive functions. They make it possible for an individual to concentrate his efforts and activity in one of the agricultural majors and complete the work in minimum time. They also serve the needs of students who are not interested in the more advanced work of the degree curricula.

### **VOCATIONAL CURRICULA**

In each of the agricultural majors a vocational certificate is awarded to individuals who satisfactorily complete the two-year vocational program. The vocational curricula are not tabulated separately, but in all cases in the agricultural division consist of the first two years work outlined under the technical curricula.

## **THE ENGINEERING AND INDUSTRIAL DIVISION**

The various curricula in the engineering and industrial division are outlined and the courses described on the following pages. Each curriculum in the division follows a common pattern of related courses and a similar pattern of requirements within the major.

### **THE DEGREE CURRICULA IN ENGINEERING**

Degree curricula are provided in the following engineering fields: Architectural Engineering, Aeronautical Maintenance and Operations Engineering, Air Conditioning and Refrigeration Engineering, Electrical Engineering, Electronic and Radio Engineering, Mechanical Engineering, Maintenance Engineering, and Printing.

Admission into the degree curricula in all engineering majors except Printing demands that, in addition to meeting the general college requirements for entrance, a student show proficiency in both mathematics and physics. His record on the placement examinations in these two subjects must be high enough to allow him to enroll in college physics and in college algebra as a freshman, before entrance into any of the engineering degree curricula. Students intending to register in this division will find it to their advantage to include in their high school courses one year of algebra, one year of geometry, and a half-year of trigonometry. High school physics and chemistry are also desirable.

If the results of placement examinations indicate that the student is lacking in prerequisites to engineering, it will be necessary for him to pursue one of the two following programs, unless he chooses to enroll in Printing:

1. He may choose to spend one year in college in an engineering preparatory course that will include mathematics and physics and other related subjects but no major work, or,
2. He may choose to enroll in a technical curriculum.

### **TECHNICAL CURRICULA**

In the engineering division, three-year technical curricula are offered in all of the majors. These technical curricula have been developed to serve the individual who is less interested in the more theoretical engineering work and to provide for those who must prepare themselves for skilled positions in the industrial fields in a comparatively short time.

Technical courses in major work, although often carrying the same title as courses under the degree curricula, are taught separately and from an approach which stresses the most practical application possible.

### **TWO-YEAR TECHNICAL CURRICULA**

In a number of the industrial fields, vocational certificates are provided individuals who successfully complete the first two years of the technical program. These certificates have been developed because students completing two years of work in a number of majors in the engineering and industrial division are qualified to handle assignments in industrial fields.

The two-year curricula meet the needs of men who must train themselves in a rather short time for specific places in industry. It is possible for an individual to have completed the two-year technical program and continue one more year to secure the technical certificate which is granted at the end of the third year. Students who have completed the three-year technical program, however, may not secure a Bachelor of Science degree by merely going one year beyond the three-year technical course. Men with degree aspirations must complete all related and major work under degree curricula listed as required. Technical courses in the major field and in the related fields will not substitute for degree courses in these same fields.



## THE SCIENCE AND HUMANITIES DIVISION

Although California State Polytechnic College prepares students primarily in the fields of agriculture and engineering, it is recognized that vocational proficiency is only one aspect of complete living. Men also need to be prepared to enjoy a richer and more useful personal, home, and community life.

In the Division of Science and Humanities have been grouped for administrative purposes those subjects which are related to all aspects of living: Vocational, civic, recreational, and aesthetic. It is the aim of the college to make instruction in these areas functional; therefore, there is as much emphasis as possible on the application of theory to the work in the Agricultural and Engineering Divisions.

The departments included in the Science and Humanities Division are: Biological Science, Education, English, Health and Physical Education, Mathematics, Music, Physical Science, and Social Science. Departmental majors are offered in Biological Science, Health and Physical Education, Mathematics, Physical Science, and Social Science. Preparation for the college's recommendation for California teaching credentials is provided by the Science and Humanities Division in cooperation with the Agricultural Division.

In the Education, English, and Music Departments, no departmental majors for meeting graduation requirements have been established at the present time. Selected courses in the Engineering and Agricultural Divisions, such as landscape design and architecture, may be used for meeting graduation requirements in the Science and Humanities Division.

All candidates for the Bachelor of Science degree in science and humanities, with majors in Biological Science, Health and Physical Education, Mathematics, Physical Science, or Social Science shall complete:

- I. The general requirements for graduation.
- II. The following division requirements:
  - 2 hours of Personal Development
  - 9 hours of Literature
  - 9 hours of Principles of Economics
  - 6 hours of College Mathematics
  - 5 hours of General Psychology
  - 6 hours of Biological Science
  - 3 hours of Background of Modern Affairs or State and Local Government  
(except for Social Science major)
- III. Departmental requirements under one of the Science and Humanities Departments.

**VOORHIS UNIT**  
**California State Polytechnic College**  
**SAN DIMAS, CALIFORNIA**

**INTRODUCTION**

The Voorhis Unit of California State Polytechnic College is situated twenty miles east of Los Angeles, centered between the communities of Covina, Pomona, and San Dimas. Being just south of the Sierra Madre Mountains, it is in the heart of the vast citrus, truck crops, and commercial ornamental horticulture production areas of Southern California.

Instruction at this institution is offered in Agricultural Inspection, Citrus Fruit Production, Ornamental Horticulture, Field and Truck Crops, general agricultural subjects, and related biological, physical, and social sciences.

The same educational philosophy, pattern of courses, and requirements of the Agricultural Division of California State Polytechnic College at San Luis Obispo are followed at the Voorhis Unit. Students enrolling in the three-year technical or two-year vocational curricula may complete all requirements leading to graduation certificates in these curricula at the Voorhis Unit; however, students seeking the Bachelor of Science degree normally complete their first three years at the Voorhis Unit and transfer to the San Luis Obispo campus to complete their degree requirements.

**HISTORY**

The Voorhis Unit became a part of the California State Polytechnic College in 1938 when this completely-equipped school and farm near San Dimas was deeded to the college by Charles B. Voorhis of Pasadena, and his son, former Congressman Jerry Voorhis. The school had previously been conducted by Voorhis and his son as a school for young boys needing a home. This branch of the college, representing an investment of more than a million dollars, was put into operation as a citriculture, horticulture, and agricultural inspection branch of the main institution. Sixty students and nine instructors opened the school in September of that year.

The Voorhis Unit experienced a steady growth to reach an enrollment of 125 students in 1943. The Unit was closed because of war conditions in June, 1943. However, the agricultural crop production areas were operated on a commercial basis for the following three years.

In the fall of 1946, the Voorhis Unit was reopened to meet the demand of returning World War II veterans for this specialized type of agricultural education. While the opening enrollment was planned for 150 students, it was necessary to expand the services of a staff of nine instructors to meet the needs of more than 250 men.

During the spring and summer of 1947 an army surplus classroom building was erected on the campus and veteran's emergency housing was provided. These additions permitted the acceptance of another 150 students in the fall of 1948. The enrollment has had to be limited each year because of a shortage of educational facilities. An additional 50 acres of land was leased in 1948 to accommodate an enrollment of over 400 students. A faculty of 21 instructors made possible many additional offerings in general agricultural subjects, biological and physical sciences, as well as the social sciences.

In March of 1948 a report of a survey of "The Needs of California in Higher Education" was submitted to the State Legislature. This report emphasized the state-wide appeal of the California State Polytechnic College and recommended that the educational program of the Voorhis Unit be expanded to serve an anticipated enrollment of 1,000 students.

## GENERAL INFORMATION

### THE COLLEGE PLANT

#### **Lands**

The campus of the Voorhis Unit comprises some 157 acres with an additional 50 acres of leased land which serves as a project laboratory for truck and field crops classes.

The Voorhis Unit is climatically suited for specialization in citrus fruits and ornamental horticulture. Approximately thirty acres is utilized for citrus, avocados, and deciduous fruits which demonstrates the utilization of different types of land for each agricultural field.

#### **Administration and Classroom Buildings**

Campus activities are centered in the Administration group of buildings which contain administrative offices, classrooms, photographic dark room, and science laboratories. One entire wing is made available for student activities with campus store, patio, and dining halls located in this area. The second floor serves as a student dormitory.

The recently erected "H" building, containing approximately 10,000 square feet of floor space, provides many additional classrooms and offices. Seven faculty offices and classrooms are located in this unit which lies directly behind the administration building.

Seven beautiful stucco buildings designed in the traditional early California Mission style serve as residence halls for approximately one hundred and forty men. These dormitories are modern, well lighted and admirably arranged for student use. Each dormitory has a lounge which serves to facilitate student recreation and welfare. Each unit houses twenty to thirty students. The residence halls are: St. James, Sunset, Rose, Smith, and Uncle Charlie's and Aunt Nell's, named after the principal donor and his wife, Mr. and Mrs. Charles B. Voorhis.

In addition to these permanent dormitories, 20 Dallas huts have been erected to provide housing for approximately eighty men. These units are located at the extreme west end of the campus overlooking the heavily wooded arroyo.

#### **Ornamental Horticulture Buildings**

Two modern commercial sized glass houses, one large metal stripped lath house, and a fully equipped propagation shed provide practical learning opportunities for students majoring in ornamental horticulture.

#### **Agricultural Mechanics Shops**

The Agricultural Mechanics Shops have complete facilities for training students in mechanical skills, such as: farm machinery operations and repair, farm building construction, welding, wiring, and plumbing.

There are two main buildings given over to shop work. The first is a large two-story structure 160 feet long and 40 feet wide which serves as the center for farm power and machinery, carpentry, plumbing, and rural electric wiring projects. The second is a student constructed welding shop, equipped with seven acetylene and five arc stations.

#### **Athletic Facilities**

The athletic plant covering approximately five acres is situated at the extreme east end of the campus on a high plateau. This location affords a panoramic view of some of the most productive citrus and avocado groves of Southern California, with famous Mount Wilson and snow-capped "Old Baldy" rising in the background. This athletic area includes facilities for track and field events, a football field, two baseball diamonds, basketball, tennis, badminton, and handball courts, portable boxing ring, and a spacious outdoor swimming pool.

#### **Veterans' Housing**

The popular "Vet Hill" housing project for married veterans and their families is located just above the beautiful swimming pool, which lies in the heart of the Voorhis campus. This unit consists of two double-story buildings and three single-floor structures equipped with all the necessary conveniences for family life. It houses a total

of 44 veteran families. Twenty-eight units are combinations including one bedroom, living room, kitchenette, and bath. Sixteen are three-room units with two bedrooms, bath, living room, and kitchenette.

"Vet Hill" is now completely landscaped and equipped with electric washing machines, gas ranges, refrigerators, double and single beds, fenced play area for children and carries on many friendly social activities.

### **Chapel**

The Voorhis Unit is fortunate in having one of the most beautiful chapels in Southern California situated on its campus. The architectural style was patterned by the donors, Charles B. Voorhis and his wife, after the old Spanish missions founded along the west coast by Padre Serra. The Voorhis built a similar chapel at Jackson Hole, Wyoming, in 1925. Both structures provide scenic views of distant mountain peaks through spacious picture windows. A two-manual pipe organ provides a rich musical background for many student and community weddings during the school year.

### **Campus Life and Organizations**

All students are encouraged to engage in the many social and recreational activities sponsored by the college. The following clubs and organizations are designed to appeal to a variety of student interests: Block "P" Association, Dormitory Clubs, Agriculture Inspection Club, Ornamental Horticulture Club—"Los Robles," Citrus Club—"Caldimas," Crops Club—"Los Rancheros."

### **Student Body Government**

Student body government functions under the jurisdiction of the elected student body officers and the Student Affairs Council, made up of elected representatives of the various campus organizations. All regularly enrolled students normally become members of the Associated Student Body. The membership fee is \$15 per year and entitles the student to admission to all athletic and social events. Membership also includes a subscription to the weekly paper, POLY VIEWS, and the privilege of purchasing at a reduced price, the college yearbook, MADRE TIERRA.

The Cafeteria-Dormitory Committee, composed of representatives of the student body, cooperates with the college administration in the operation of the college cafeteria and the dormitories.

### **"Poly Vue"**

"Poly Vue" is the name given to the annual open house day of the Voorhis Unit of the California State Polytechnic College. It is designed to show parents and friends the yearly activities and progress of the institution as well as to provide a time for friendly social activities.

Each year a coeducational college in the area is selected by the Voorhis student body to provide a court to serve the queen who reigns over "Poly Vue."

### **Publications**

POLY VIEWS is the official publication of the Associated Students of the Voorhis campus and is published weekly during the school year.

MADRE TIERRA is the yearbook record of student activities carried on during the year on the Voorhis campus.

### **Health and Medical Service**

All students are required to pay a medical fee of \$3 per quarter which provides the student with medical service at a clinic in a nearby community. The service covers costs for treatment by a physician for colds, digestive troubles, chronic diseases, infectious diseases, minor surgery, setting of broken bones, and first aid. It does not include hospitalization, major surgery, or X-ray.

### **Campus Employment and Placement**

Campus employment opportunities are handled by instructors in the various departments and those charged with campus maintenance. Off-campus employment opportunities are handled by faculty members of the three major departments. This arrangement is practical because these faculty members are constantly in touch with farmers and commercial people serving in the fields in which the students are receiving training.

The services of the placement office on the San Luis Obispo campus are available to graduates and transfers from the Voorhis Unit. However, staff members of each of the three departments carry the major responsibility for the placement of men who have had all or part of their instruction at the Voorhis Unit.

**Athletics**

Intercollegiate competition in basketball and baseball was first carried on during the 1946-47 school year. The next fall the first football team was fielded. That same year teams representing the college participated in intercollegiate tennis and track competition.

Most of the intercollegiate competition at the Voorhis Unit has been with junior college and college teams in the Southern California area. Being a branch of a four-year college, yet with most of the students in their first two or three years of work, it has been impossible to join a conference. Competition has been maintained in football, basketball, track, baseball, tennis, and golf.

A "V" in the center of the block "CP" athletic award, presented at the Voorhis Unit, distinguishes it from the one won by athletes on the San Luis Obispo campus.

An extensive intramural program based upon voluntary participation is maintained as an integral part of the curriculum in physical education. Sports such as touch football, basketball, volleyball, and softball have been organized around the dormitories. Individual sports such as tennis, badminton, horseshoes, track and field events, swimming, handball, boxing, and wrestling have been organized around four departmental clubs: Agricultural Inspection, Los Robles, Caldimas, and Los Rancheros. An elaborate point system has been devised to stimulate competition in the various intramural activities.

The Department of Health and Physical Education offers activities designed to provide a sound program of recreation, education in physical skills, and the give-and-take games. Training in these fields is provided through regular physical education classes. Health instruction is given all freshmen through a two-unit course in hygiene. A medical examination is required of all entering students.

**AGRICULTURAL PROJECT FACILITIES**

Because of the nature of the enterprises in the plant field, the student work is largely concentrated in group projects—that is, the fruit production students handle the entire citrus grove as a unit. The cultivation, irrigation, and survey work is done entirely by the students in addition to a major portion of the harvesting and pest control. The same procedure is followed by students majoring in ornamental horticulture and agricultural inspection work on various other areas of school property.

Project facilities include 11 acres of bearing navel and valencia oranges, three acres of eureka and lisbon lemons and three acres of fuerte avocados, available for student practice work and management. The school is located in a thermal belt, making it possible to find ample field practice in deciduous fruit production from the campus planting and in neighboring orchards.

In addition to the fruit acreage, approximately 50 acres are in use for vegetable and field crop production. This makes many opportunities for students to secure practical experiences in planting, growing, harvesting, and pest control on a commercial basis.

Advanced students are encouraged to secure part time employment closely related to the field of their major interest such as: Many students work at orchard mapping and grading, tree treatment, pruning, orchard heating, nursery work, landscaping, and grounds maintenance. Many ranches and estates near the college call upon students for this type of work.

Climatic conditions at the Voorhis Unit, which make it admirably suited for fruit production, are equally advantageous in the ornamental horticulture field. The Voorhis campus has ample propagation facilities for nursery work and affords extensive opportunity for supervised gardening and for field trips to major propagation areas.

Complete facilities are provided for training men in the common practices and skills as well as the essential techniques in agricultural inspection. Equipment includes that used in fruit testing; plant, insect and disease specimens of importance in the major fruit and crops production areas of California, as well as laboratory samples and specimens of diseases and pests which might be introduced from other states and nations; laboratory equipment and microscopic analysis; a small apiary for all types of bee work; farm equipment and supplies used in weed and rodent control; a completely equipped soils laboratory; and a complete library of related information covering all subjects taught. Pest control equipment and material are available. The curricula were established after each course and combination had received the approval of the State Department of Agriculture for its effectiveness in training inspectors.

In addition to the inspection facilities on the campus, the whole State serves as a training ground. Many sophomores and junior students secure temporary summer employment in the inspection and pest control fields. Field trips are made to nearby shipping points and picking and propagation districts.

## ADMISSION, REGISTRATION, AND GRADUATION

Admission requirements, registration procedure, admission with advanced standing, credit by special examination, scholarships, loan funds, general graduation requirements, graduation requirements for the Agricultural Division, and teacher credential requirements are the same for the Voorhis Unit as for the San Luis Obispo campus of the college. Complete information on these subjects will be found under the **ADMISSION, REGISTRATION, AND GRADUATION** sections of this catalog.

### FEES AND DEPOSITS

#### State Fees and Deposits

Laboratory and Course Fees (quarter) .....	\$5.00
Breakage Deposit (year) .....	10.00
(All deposits refunded at end of year if there are no charges against student)	
Late Registration Fee .....	2.00
Late Return of Registration Cards Fee .....	2.00
Transcript Fee (no charge for first copy) .....	1.00
Evaluation of Record Fee .....	2.00
Course Challenge by Special Examination Fee (per unit) .....	1.00
Extension Course Fee (per unit) .....	\$1.00 or 5.00
Change of Program Fee .....	1.00
Failure to Meet Administratively Required Appointment .....	2.00

#### Other Fees and Deposits

* Subsistence Deposit (all students, year) .....	\$10.00
(Unused portion refundable when student leaves school)	
Associated Student Membership Fee (per year) .....	15.00
Medical Fee (per quarter) .....	3.00
Graduation Fee .....	6.00
(Must be paid at time application for graduation is submitted)	

NOTE: Fees for the summer quarter are identical to the fees for the other quarters.

### LIVING EXPENSES

Room, per month (subject to change) .....	\$9.00
(Must be paid quarterly in advance; students are required to furnish bed linen and blankets)	
Board, per month (subject to change) .....	40.00
(Must be paid in advance)	

Example of what the average student, not enrolled under Public Law 16, 346, or the California Veterans Educational Act, pays at the time of registration:

Subsistence Deposit .....	\$10.00
Breakage Deposit .....	10.00
Associated Student Membership Fee (per year) .....	15.00
Medical Fee (per quarter) .....	3.00
Laboratory and Course Fee .....	5.00
Room Rent (per quarter) .....	27.00
Board (per month) .....	40.00
Books and Supplies (estimated) .....	30.00
	<hr/>
	\$140.00

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\* All applications for admission must be accompanied by a \$10.00 subsistence deposit.

Example of what the average student enrolled under Public Law 16, 346, or the California Educational Act, pays at time of registration :

Subsistence Deposit .....	\$10.00
Room Rent (per quarter) .....	27.00
Board (per month) .....	40.00
* Books and Supplies .....	----
	<hr/>
	\$77.00

### FAMILY HOUSING

† Rental Charge on Apartments :

1-Bedroom Apartments, furnished, including utilities...	\$30.00 (per month)
2-Bedroom Apartments, furnished, including utilities...	35.00 (per month)

### REGULATIONS

The following regulations apply to students at the Voorhis Unit in the same manner as to students on the San Luis Obispo campus : Change of Curricula ; Change of Program ; Class Attendance ; Grading System ; Minimum Grade Requirements ; Personal Conduct ; Maximum and Minimum Load, credit for Military Service. (See front of this catalog on General Information.)

#### Eligibility for Intercollegiate Athletics

All students regularly enrolled at the Voorhis Unit are eligible to participate on the athletic teams, providing they meet the following rules set up by the Athletic Board.

1. Competition is open to regularly enrolled students currently carrying at least 12 units and passing in at least 10 units.
2. Students must have taken 10 or more units and earned at least five grade points during the last quarter or semester of any college attendance.
3. A certified student must be an amateur sportsman who is engaged in sports for the physical, mental, or social benefits he derives therefrom, and to whom the sport is an avocation. According to the National Collegiate Athletic Association's interpretation any athlete who takes or is promised pay in any form for participation in athletics does not meet this definition of an amateur.
4. Freshmen, Junior college transfers, and transfer students from four-year colleges are immediately eligible if previous credits satisfy requirements of eligibility.

Administration of these regulations are carried out by a faculty committee which makes checks bimonthly on the eligibility of students participating in extra-curricular activities.

\* If trainees have a Veterans Administration Letter of Entitlement when they register, books and supplies will be furnished. If they do not have the Letter of Entitlement, the trainee must pay for all fees, books and supplies until the time the letter is presented. There will be a refund made to the veteran when the letter is presented.

† Includes electricity, gas, and water.



*For further information address inquiries to:*

REGISTRAR, CALIFORNIA STATE POLYTECHNIC COLLEGE  
SAN LUIS OBISPO OR SAN DIMAS, CALIFORNIA

Send to :

Registrar  
California State Polytechnic College  
San Luis Obispo, or San Dimas, California

Date \_\_\_\_\_

I am interested in \_\_\_\_\_  
(Indicate contemplated major course of study from courses listed above)

Please send me full information and an Application for Admission Form.

Applicant's name \_\_\_\_\_  
(Please Print)

Applicant's mailing address \_\_\_\_\_  
(Please Print)

## **AGRICULTURE**

Agricultural Engineering	Field Crop Production
* Agricultural Inspection	Ornamental Horticulture
Animal Husbandry	Poultry Husbandry
* Citrus Fruit Production	Soil Science
Dairy Husbandry	Truck Crop Production
Dairy Manufacturing	* Ornamental Horticulture
Deciduous Fruit Production	* General Crops Production

\* The first three years in these majors must be completed at the Voorhis Unit at San Dimas.

## **ENGINEERING**

Aeronautical Engineering	Electrical Engineering
Air Conditioning and Refrigeration Engineering	Electronic and Radio Engineering
Architectural Engineering	Maintenance Engineering
	Mechanical Engineering
Printing	

## **SCIENCE AND HUMANITIES**

Biological Science	Physical Education	Social Science
Mathematics	Physical Science	

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